Addis Ababa University
College of Education
Department of Psychology

A Study of Student Dropout at Some Selected TVET Colleges in Addis Ababa

A Thesis Submitted to Addis Ababa University School of Graduate Studies in Partial Fulfillment of the Requirements for the Degree of Master of Arts in Measurement and Evaluation

By
Ambachew Tilahun

May 2009

Acknowledgment

At the out set, I want to express my gratitude to my advisor, Dr. Ayele Meshesha, whose unreserved supervision, guidance, meticulous and invaluable assistance made it possible to complete the research successfully in time.

My sincere thanks also goes to my beloved wife W/ro Giaework Sisay and my son Natan Ambachew who had the patience to endure loneliness due to my absence from home and neglecting them in devoting much of my time for the study.

I also owe gratefulness to Ato Tekle Sergulalem in reviewing all the study paper and providing amendments and valuable suggestions. I'm also indebted to my brother Yonas Tilahun for his unreserved help of all sorts.

Furthermore, I would like to express my deepest thanks to the sample TVET colleges' academic and administration staff for their cooperation in providing the relevant documents. My special thanks also go to all of my research respondents: TVET institutions deans, assistant deans, teachers, counselors and dropouts who participated in giving relevant data.

Abstract

This study examines the magnitude of the problems of students' dropping out in TVET Colleges. The conducted empirical study focused on TVET dropouts in three selected public TVET colleges of Addis Ababa city government, Addis Ababa in 2007/08-2008/09. 103 dropouts, 111 teachers, and 6 deans and academic deans were selected for the study. In regard, to this, Stratified, convenience and purposive sampling techniques were employed for teachers, dropouts, and deans and academic deans respectively. Data were obtained from questionnaires, documentary analysis, and the sampled TVET colleges' registrars. All the respondents completed and returned the respective questionnaires prepared (for dropouts in Amharic and in English for teachers' and deans and academic deans). According to the analysis of the causes of dropout, institutional factors are found to be highly influential. Depending on the results of the findings, assuring employability of trainees, relevant curriculum design to the world of work, enhancing attractiveness of TVET programs, recruiting competent qualified teachers in sufficient amount, ensuring a balanced expansion of TVET institutions are some of the key recommendations forwarded by the participants to reduce dropout. The paper summarizes a large body of research and also provides recommendations.

Table of Contents

CHAPTER FOUR

CHAPTER FIVE

List of Tables

Page

Abbreviations and Acronyms

AACG	Addis Ababa City Government
AU	African Union
CDRP	California Dropout Research Project
ESDP	Education Sector Development Programme
ETF	European Training Foundation
MOE	Ministry of Education
MDG	Millennium Development Goals
TVET	Technical Vocational Education and Training
UNESCO	United Nations Education, Science and Cultural Organization
UN	United Nations
UNICEF	United Nations Childrens' Fund
WB	World Bank

CHAPTER ONE

1. INTRODUCTION

1.1 Background of the Study

Education is the centerpiece for development. Better education and training leads to higher productivity, employment, and in raising the average income in the long run (Ahier and Esland, 1999:70). In the process of human resource development, educational institutions play a significant role. Bonn (2004), as cited in AU (2007:17), emphasized the significance of TVET as:

> *"Since education is considered the **key** development strategy, Technical and Vocational Education and Training (TVET) must be the **master key** that can alleviate poverty, promote peace, conserve the environment, improve the quality of life for all, and help achieve sustainable development."*

The primary objective of TVET is the acquisition of relevant knowledge, practical skills and attitudes for gainful employment in a particular trade or occupational area. Thus the need to link training to employment (either self or paid employment) is at the base of all the best practices and strategies observed world wide (AU, 2007:27).

For many years, TVET received little attention in Sub-Saharan Africa. The fact that TVET was considered as becoming obsolete and not sufficiently cost-effective explains this disdain (Atchoarena and Delluc, 2002:5).

To a large extent, this is related to the internal efficiency of TVET programs reflecting the concern for youth employment and poverty alleviation. This eventually led to the need to refocus the role of TVET as an instrument for the knowledge economy (ETF and WB, 2005:10).

As integral component of the national poverty reduction plan, Ethiopia, like many other developing countries, adopted a policy shift from inputs to

outputs to use TVET as a vehicle for economic growth through targeted skill development (MOE, 2006:6).

However, there is sufficient evidence to believe that, this recommended policy shift, in spite of its potential merits, did not yet produce full results. Besides, the ongoing reform process can be best explained as slow and limited due to the fact that all efforts and resources were directed towards the massive quantitative expansion of the public TVET supply. As indicated in MOE (2005:30), efforts made to improve the quality of education are offset by the greater push given to increasing enrollment.

As a consequence, TVET systems by-and-large could not address actual skills needs in the economy, with most programs of low quality and theory-driven due to resource constraints (MOE, 2006:8).

In many African countries, the benefits of vocational education have not been documented in detail (Wanna, 1992:58). Research on the school-to-work transition in Africa is somewhat scarce (Atchoarena and Delluc, 2002:47). Although some information about TVET enrollment is available, the country suffers from tracking of records on graduates' level of integration in to the labor market. As stated in MOE (2006:35), TVET development is currently hampered by serious lack of relevant data and information on issues such as costs of TVET, labor-market development, the impact of existing TVET delivery schemes including measures of internal efficiency, quality and proportion of graduates entering the work force. Therefore, in spite of the multiplicity of training programs, the current TVET system is unable to play its key role to the national education system (Wana, 1992:61).

Despite such limitations, available data indicate that TVET programs lack effectiveness and efficiency (MOE, 2006:8). It is also indicated that the currently existing TVET strategies in Addis Ababa do not accord in line with outcome-based technical and vocational education training system (AACG,

2005:5). Although TVET programs are heavily orientated to employment, unemployment still remains to be a pervasive problem among TVET graduates (MOE, 2008:54).

Imported models of TVET, which were developed in the context of advanced countries, do not correspond either to the needs or the means of many African countries (World Bank, 1990:20).This is, in itself an obstacle to the provision of quality training and education.

One of the most important aspects of this mal adaptation is the high rate of 'wastage' due to students' dropout. The expansion of TVET programs alone could not be an end in itself. The problem is now more a question of quality, inefficiency, and wastage exemplified by high dropout rate (ETF and WB, 2005:12).

Obviously, much of investment allotted for education has not yet been efficiently utilized (UNESCO, 1980). Also, high investment in its own will not guarantee the desired results unless the benefit of investment in education is optimized (Ayalew, 1997:493). Rumberger (1987:102), in this regard indicated that providing education for all requires identifying barriers that hinder the teaching-learning process, and, overcoming or reducing these barriers.

In countries like Ethiopia, where education is in its infancy and resources are scarce, educational wastage in the form of dropout could not be tolerable. The situation could even be worse in education institutions like TVET colleges where per student education cost is very high. To address the dropout crisis requires a better understanding of the underlying causes behind students' decisions to dropout. This requires conducting a thorough (in-depth) study. Therefore, what students benefit from their training calls for assessments and corrective measures? This is what TVET programs in our country should consider in the long run to reduce wastage in education.

1.2 Statement of the Problem

The purpose of this study is to investigate the causes of dropout in TVET Colleges of Addis Ababa. More specifically, it attempts to answer the following basic questions.

1. What is the trend and magnitude of student dropout in government TVET Colleges in the past two year in the study area?
2. Which sex is affected more by the problem?
3. Which internal and external factors appear to influence dropout behavior?
4. What programmatic remedies should be taken to prevent dropout?

1.3. Objectives of the Study

The major objectives of the study are:

- To identify the trend and magnitude of dropout in government TVET Colleges during the past two years of sampled institutions
- To identify the external and institutional factors which appear to influence TVET college dropout
- To forward programmatic remedies which should be taken to prevent students' dropout

1.4. Significance of the Study

It is well understood that technical and vocational education is perceived as an investment from which dividends and profit must accure. Recognizing this fact, much resource is allotted to the program. But, unless the funding of such programs is accompanied by meaningful dropout problem alleviation endeavors, it is impossible to promote social change and improve the social standing of the poor. Moreover, the country's scarce resource could be

wasted. Thus, in order to establish dropout mitigating mechanisms, it is important to identify the major causes of dropout. Involving systematic efforts for systematic solutions warrants attention. It is thus with this intention that the writer proposed this study plan. Moreover, the writer believes that findings of this study may be valuable for decision-makers and for those who have interest in this area of study.

1.5. Delimitation of the Study

The study is delimited to public TVET institution of Addis Ababa city government, Addis Ababa. The first reason for delimiting the study in public TVET institutions is that the writer of this paper has a profound experience in TVET operation and is well aware of the severity of college dropout problems. The second reason is that no systematic and in-depth study has been conducted so far. Thus, by identifying the potential causes of college dropout, it is possible to suggest and establish dropout coping mechanisms.

Third, conducting a study in institutions where students of different socio-economic and cultural backgrounds help to recommend alternative dropout alleviating mechanisms that could appropriately be adapted through out.

Fourth, public TVET institutions are bound with immense structural problems that could exacerbate the dropout problem. So, the study helps to identify influential factors that could give rise to dropout and under take remedies.

1.6. Limitation of the Study

The major problems that the study plan confronted with appeared to be:

- To find sampled dropouts in big cities like Addis Ababa, where their permanent destination is specified, was a serious Challenge.

- Scarcity of related literatures focused on TVET dropout both at local and international level.
- Budget constraint to run the study plan at the desired level.

1.7. Definition of Terms

Skill Development- is defined as support given primarily to the poor and socially vulnerable segments of the population for mastering vocational technical skills and carries the aim of directly contributing to poverty reduction by enabling individuals to take in income via the acquisition of fundamental technical skills (WB, 2006).

Effectiveness- is the relationship between the objective pursued and the result actually achieved. In case of TVET, the objective is to give every pupil the possibility of finding gainful employment and carrying out in optimal fashion the tasks required by his or her employer (Atchoarena and Delluc, 2002).

Quality- is a measure of the training received in meeting the knowledge and skills objectives, is at the heart of effective vocational training (WB, 2006).

Relevance- A training program that is flexible, demand-driven, and responsive to the needs of the trainee, the community and the local industry (WB, 2006).

TVET- is defined as 'human resource development aimed at providing the skills and knowledge necessary to carry out productive activities that lead to employment or entrepreneurship (WB, 2006).

1.8 Organization of the Study

This study is organized into five chapters. The first chapter deals with background of the study, statement of the problems, objective of the study,

significance of the study, delimitation of the study, organization of the study and operational definition of terms. The second chapter presents the review of related literature and factors associated to student dropout. Chapter three deals with research methodology and design, and chapter four focuses on presentation, analysis and interpretation of data. The last chapter deals with summary, conclusion and recommendation.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1 Magnitude of the Problem

The human development theory considers schooling as an investment that develops human capital (Becker, 1975:232). In a globalized economy, a large pool of skilled force is indispensable. It is, therefore, crucial to invest in quality secondary, tertiary and technical and vocational education if Ethiopia's economy is to develop and remain competitive in world markets (Wanna, 1992:45).

High investment in its own, however, will not guarantee the desired results. If the benefits of investment in education are to be optimized, 'wastage' would have to be avoided or at least minimized (Ayalew, 1997:492). So, in order to achieve the expected out comes, identifying barriers and overcoming or reducing or removing these barriers should be of a top priority.

The term 'wastage' is generally used to describe the combined effect of repetition and dropout (UNESCO, 1980:13). Wastage is about missed opportunities for individuals, families, communities, the entire nations, and regions of the world (WB, 1998:48). It deprives developing countries of the ability to make the most efficient use of resources and takes its greatest toll on the most groups of the society. Bishop (1989:24), explained that the contribution that education can make to a country's development is vitiated by the enormous wastage that occurs in the form of dropout.

Educational wastage in the form of dropout is a pervasive problem in the education system. Students' dropout before course completion (graduation) is considered wastage hence the student who dropout has not achieved the educational objectives designed for the course (UNESCO, 1980:26). Natriello

et al., (1985) indicates that it is difficult to estimate the economic cost of education wasted due to dropouts.

Overall, most evidence supports the notion that dropout has negative individual and social consequences. Individual dropouts suffer because many have difficulty finding steady, well paying jobs not just when they first leave school but over their entire lifetimes. Society suffers as well because unemployment and lost earnings, lower tax revenues and increase demands on social services. Rumberger (1987:104), stated that dropout of school is beyond doubt costly both to the individual as well as the society. Alike, Ayalew (1997:493), pointed that the dropout will be left with a low level of knowledge and skill and raise the costs associated with producing graduates at each cycle.

In Ethiopia, a credible TVET strategy which fits into the country's socioeconomic context is not established. All the different approaches are not yet part of the over all training system, thus, excluding large majority of trainees, job seekers (creators) and working people (MOE, 2005:17).

For Shiundu (1999), unemployment is one of the different forms of educational wastage, since, the knowledge, skills, and experience are not sufficiently acknowledged, developed, and utilized. Worse, it could also be a potential factor for college dropout. Unless equipped with the necessary employable skills, won't be students motivated to remain in school. Students' who perceive schooling as less relevant have a much more chance of leaving school before completion (Husen and Thwaite, 1995).

Cost of education could also be a major fueling factor for college dropout. In many African countries, students of poor families are unable to afford the fees charged by TVET institutions (ETF & WB, 2005:28). In the predominant mode of TVET delivery in Ethiopia, costs of TVET are high (MOE, 2006:9).

As cited in Atchoarena and Delluc (2002:45), public expenditure per TVET student in Ethiopia is 475 US Dollar, which is much higher, by a factor of 3 to 4, than those for general education.

Similarly, although current expenditure figures are not available, in 2005/6, a separate study on per student relative cost by level of education was made with the assistance of UNESCO. The study, according to MOE (2008:57), revealed that expenditures per secondary student were approximately 2 times as much as for primary students (1-8) and that of per TVET expenditures are 21 times as costly. This, invariably, shows the expensiveness of TVET programs. Here, the concern for college dropout is predicated on a belief that leaving TVET institutions before graduation is worse for the individual, the society, and the country at large.

Moreover, there is a strong link between the levels of TVET spending and dropout. Technical and vocational education requires expensive equipments, facilities and teaching materials. In the absence of such inputs, training yields poor results and the possibility of graduates in finding gainful employment is minimal. Periods of tight budgetary policies, thus, lead to a vicious circle, since the quality of training falls and graduates' difficulties in finding jobs grow more acute (Moura Castro, 1999).

The inability to finance TVET at a level that can support quality training appears to be ineffective in meeting observed or projected labor market demands. In effect, students are faced with the daunting prospect of employability, which in turn, worsens the dropout rate. To this end, the share of TVET in the total education budget accounts only 10.6 percent (MOE, 2008:6).

As briefly indicated in MOE (2006:16), under funding is a structural problem in the TVET sector, particularly in the public system, resulting in a lower than average teacher/student ratio and substantial capital and recurrent loses incurred through practical training. Strengthening this

notion, Atchoarena and Delluc (2002:45), explained that public TVET expenditure in total education budget in Ethiopia, by the year 1992 is 0.9 percent, while Gabon devotes 12.7 percent.

On the other hand, Johanson and Adams (2004), cited in AU (2007:24), noted that Ethiopia spends only about 0.5 percent of its education and training budget on TVET. In a more recent report, the education statistic annual abstract indicated that the recurrent spending per student in TVET colleges was estimated to be 4332 Eth Birr (MOE, 2008:8).

In general, there is a little capacity in TVET programs and even that is underutilized. TVET program is hampered by immense structural problems. In spite of the multiplicity of training programs, the place of TVET is marginal both in the school system and poverty alleviation. Practical evidences suggest that poor and decreasing quality of training represent major challenges.

Therefore, identifying the nature and causes of educational wastage, particularly in the form of dropout, warrants attention. Based on this intention, the writer proposed a study plan in this regard.

2.2 Definition of Dropout

There is a common understanding that much of the investment made on education has not yet been efficiently utilized. Wastage in education is an undesired encounter in educational development. The inefficiency is clearly manifested in the form of dropout, repetition, and absenteeism.

Dropout of school is one visible form of educational failure. The issue of dropout is the one that become more salient as nations establish formal education systems and develop requirements for school attendance. Only when regular attendance to a certain level in the educational system

becomes the norm or the legal requirement does the failure of individuals to comply become defined as problematic (Husen and Thwaite, 1995).

As a result of the complexity of the problem of dropout behavior, our understanding of the phenomenon is at best tentative. A major challenge facing any study of school dropout is how to define and identify the dropout population (Strey, 2001).

There are no universally agreed upon definitions of dropout (Valencia, 1991:64). Nevertheless, there is a broad international agreement that student dropout is wastage because the investment in a dropout in terms of money, buildings, educational facilities, and teachers is largely wasted. In this regard, UNESCO (1998:2), describes that educational wastage refers to human and material resources spent or 'wasted' on students who repeat a grade or dropouts before completing a cycle. This denotes the wasted opportunities for those children to develop the knowledge, skills, attitudes and values they tend to live and continue learning.

Despite the inherent limitations what dropout status means, there will always be a continued interest in measuring dropouts. Unfortunately, available data on dropouts are potentially inaccurate and incomparable because they are collected by different agencies, using different sources of data (Rumberger, 1987:112).

Therefore, defining and measuring dropout depends on how one defines a dropout; hence, a single definition is often ambiguous. The continued development of our understanding and prediction of dropout will, thus, proceed with the validation of situation specific models.

Students who fail to attend school to the point of completion as defined by local norms are commonly identified as 'dropouts' or 'early school leavers' (Husen and Thwaite, 1995). Dropout school is also termed as leaving school without graduating (Rumberger, 1987:64).

The definition of dropout is even more complicated. Husen and Thwaite (1995), proposed the following definition.

> *A dropout is any student, previously enrolled in a school who is no longer actively enrolled as indicated fifteen days of unexcused absence, who has not satisfied local standards for graduation, and for whom no formal request has been received signifying enrollment in another state-licensed educational institution. A student death is not tallied as a dropout ...*

Further more, Janne (1993:206) in Strey (2001) says that dropouts are individuals who:

1. W ere enrolled in school at some time during the previous year,
2. W ere not enrolled at the beginning of the current school year,
3. H ave not graduated from high school or an approved educational program, and
4. H ave not transferred or been suspended or are temporarily absent.

The term dropout is also defined in many ways. Some state that a dropout is any individual who quits school without graduating or changing school. For Dorn (1996), dropouts are students who leave school before reaching the end point of the educational cycle in which they are enrolled.

Hyde (1989), also states that dropouts are students leaving school and not enrolling in that or any other school before they have completed a cycle. Also a dropout is a person who is not currently enrolled in school/college and does not have diploma or equivalent certificate (Valencia, 1991:67).

Similarly, according to MOE (2008:208), dropouts are students who discontinue their learning from a given grade level.

Local standards for designating dropouts may differ in terms of the period of absence required before classifying as a dropout. Similar trends are

observed in TVET colleges selected for study. To explore the contributing factors is the critical issue of the study.

To sum up, as the concept of dropout is broadened and takes different forms, the writer of this paper employs a combination of definitions (Rumberger, 1987; Valencia, 1991; MOE, 2008; Morrow, 1987; Dorn, 1996) that best explains technical and vocational education institutions in this regard. Thus, dropouts are students who discontinue their learning from school with out graduating (does not obtain diploma or equivalent certificate) either by the students' own decision or by the criteria set by the education institution.

2.3 Factors Contributing to Students Drop Out of College

The apparent causes of dropout are many. In the course of educational researches, a perplexing question investigators are preoccupied with is why students dropout. Due to this, different classes of causes or antecedents have been cited. Husen and Thwaite (1995), classified the causes as: the characteristics of individual students, of their schools, and of the wider environments in which both the students and the schools exist. On the other hand, Rumberger (1987:104), grouped the factors associated to dropout are family related, economic, and individual. Also Lockheed et al., (1991), cited in Ayalew (1997:494), grouped the factors that result in dropout in to two broad categories:

A. Family and student characteristics that affect the demand for education, and
B. Schools and educational policies that are ineffective.

Natriello et al. (1985), concur with the other writers with regard to students' family conditions and economic issues as main reasons for dropout. The causes of dropout, according to ERGESE (1985), include inappropriate

curriculum, economic problems and home-school distance. Tanguiane (1990), also presented the following rather more detailed list of causes:

a. Perceived irrelevance of the curriculum,
b. Inad equate provision of instructional materials,
c. Congested classrooms,
d. P oorly trained teachers,
e. Location of the school to the students' home, and
f. Low level income of parents.

Moreover, within each of the categories discussed above, there are a number of specific factors associated with school dropout. Although the degree of influence of such specific factors (peer influence, marriage, unwanted pregnancy, absenteeism, gender, etc) seemed to receive little attention, their effects should not be undermined as they encounter a sizable dropouts.

Although in any particular study it is difficult to demonstrate a casual relationship between any single factor and the decision to quit schooling, a large number of studies with similar findings do suggest a strong connection (CDRP, 2008:4). Despite this fact, the causes and the nature of dropout are very different for different levels of educational settings, and such differences should further be explored and used to develop separate models of dropout for different types of school settings (Grant and Sleeter, 1986).

As a summary, in a more demonstrative way, the major causes of dropout of students is the product of both the content of schooling (institutional factors) and the nature of students lives out side of school (external factors) (Husen and Thwaite, 1995).

In view of this, institutional factors contributing to students' dropout in TVET colleges are: poverty, family breakdown, and lack of employment opportunity, parental inability to afford educational expense, parent's level of education, students' involvement in income generating tasks, and

excessive involvement in family work. On the other hand the major external factors for dropout include: college distance, curriculum irrelevance, shortage of qualified teachers, low qualification of teachers, lack of guidance and counseling services, inadequate supply of instructional material, lack of teachers' encouragement for students, absenteeism, and selection and placement.

The impacts of these factors are discussed in detail hereunder.

2.3.1 College Related Factors (Institutional)

There are a number of circumstances that educational institutions, established to the attainment of educational goals, become potential causes for school dropout. Educational policies that are ineffective to gear the educational system are incapable of giving shape to the future. In contrast, there is a long standing faith that education helps to promote social change and, thus, improve social standing of the poor. Thus, unless educational institutions meet demands of students' interest and societies at large, school dropout on this regard remains a continuing serious challenge.

Some of the factors which fall under this category, among many others are:

Irrelevance of Curriculum

Non targeted skills development is one of the major weaknesses of the TVET system in many African countries (AU, 2007: 24). Consequently, valuable feedback from past trainees on the quality of training they have received and the opportunity for their experience-based inputs should have to be factored into the review of curriculia and training packages. Relevant curriculia should provide hard evidence on the extent to which those needs reflected in the curriculum objectives are currently being met in schools (Pratt, 1994:54). This illustrates that curriculia should be consistent with the stated objectives of school programs.

In contrast, a curriculum which did not reflect the needs and interests of the society in general and the learners (employment) in particular were found to be a major factor for poor attendance and withdrawal from school (Taddesse, 1974). However, there is a general, though not universal, agreement among educators that curriculia should be based on learners' needs (Pratt, 1994:35). Learners' needs in the context of TVET refer to employment opportunity. More precisely, the justification of for a curriculum resides in a human need.

One of the most important features of TVET, as a strategic means to create wealth and emerge out of poverty, is its orientation towards the world of work and its emphasis of the curriculum on the acquisition of employable skills (WB, 2002:8).

However, MOE (2006:8), pointed that a systematic integration of TVET with the world of work has not yet been achieved. It is also explained that most curriculia used in formal TVET were developed with out sufficient involvement of employers.

This calls the need to further conceptualize and accelerate the system of occupational standards together with standard-based testing and certification. As indicated in MOE (2005:45), curriculum will be localized so that it shall incorporate social values, indigenous knowledge and skills of localities. However, this has not been the case, so far in Ethiopia.

Selection and Placement

Researches on school related factors mostly focus on students' behaviors and performance in school, however, little attention has been given to the influences of schools themselves (Rumberger, 1987:102). Investigators have suggested that the articulation between participation and performance is an important determinant of school continuation.

It is important to inquire in to the causes of dropout of school in middle and higher level education institutions. One of them is undoubtedly improper selection and placement of students. The problem is often to discourage students from beginning an education that they will never be able to complete. Schools provide an academic environment, and students' perceptions of this environment determine their academic behavior and choices (Husen and Thwaite, 1995).

Some analyses have argued that students who may be victims of educational systems that do not meet their needs are susceptible for early school leaving (Wehlage et al., 1989). Moreover, studies of the sequence of events that often create a student dropout indicate that the mismatch between school demands and student behavior can grow over time; thus opportunities for success become more remote and motivation to remain in school become weaker (Natriello et al., 1985).

Students are selected in to the vocational stream on the basis of state-level examinations in Grade 10 (MOE, 2008:39). The exam helps to determine whether students join the preparatory stream or pursue a career in the TVET track.

Meanwhile, a comparison of student performance in this examination for those going into different streams has not been done, the premium place on general secondary and higher education by students and their parents, leads one to believe that students joining TVET are those who perform poorly in the grade 10 examinations (WB, 2007:13).

Here, how well are students selected is open to question. As indicated in AACG (2005:6), principles and procedures for flexible entry and exit as well as for recognition of prior learning are not yet developed.

Therefore, unless students join TVET on the basis of the learners' interest accompanied by practical skill-based selection, college dropout remains to be a continuing challenge.

College location

It is evident that one of the most important school characteristics that affect students' attendance and persistence in school is the location of education institutions.

Exactly how schools influence dropout behavior is less clear. Ethnographic studies show that dropouts report poor schooling conditions and experiences, schools either fail to engage some students or they actively try to push the difficult and problematic students out (Fine, 1986).

The structural characteristics such as school location (urban, suburban, rural), size, and type (state versus private) also seem to influence dropout, even when important individual and family characteristics are controlled (Strey, 2001).

Of course the kind of schools that students attend is influenced by their place of residence and social class. Although economic and geographical inequities are barriers to participation in TVET (AU, 2007:23), students of poor families are predominant in vocational education due to its relatively low tuition cost. However, various conducted researches confirmed that private schools usually have lower dropout rate than state schools (Rumberger and Thomas (2000), has cited in Strey, (2001). On the other hand, students attending city schools that generally are considered to have a relatively poor rate of return have high dropout rates (Rumberger, 1987:75). Similarly, schools located in towns and cities have a significant negative effect on the years of schooling completed, where some have observed personnel in crowded urban schools pushing students out (Fine, 1986). In contrast, other studies (Tilaye, 1999; Coombs, 1985), contend

that urban school students have better completion rates than their counter parts in rural schools.

More precisely, the types of schools that students attend can help to compensate for other disadvantages that students bring into school or simply compound them.

Beyond school availability, dropout has been linked to features of school organization and student experience within schools. Such features may be considered along two dimensions. First, it has been observed that schools often present students with limited opportunities for academic success. Students who have difficulty in meeting the academic demands of the school tend to leave (Strey, 2001). Similarly, according to Valencia (1991:75), social and academic engagement levels of students within the school system has a strong link with dropout behavior.

Another dimension that college location becomes a determinant factor is home to school distance. ERGESE (1985), pointed that the distance from home to school has a strong effect on students' decision to either quit or continue schooling. Tanguiane (1990), also explained that school proximity seems to reduce dropout rates. On the other hand, Fine (1986), says that students traveling a long distance from home-to school are more likely to leave school early than those who reside close to school.

More specific, students who travel long distances from home to school face various challenges. As briefly discussed in the previous sections, many students are unable to afford transport costs due to socio-economic factors. Besides, transportation is inadequate, this aggravate lateness and absenteeism. As cited in AACG (2005:5), the living condition of the majority of inhabitants is poor and transportation supply is low.

Tardiness also aggravates student dropout in TVET colleges. As indicated by the Entoto TVET college directive, a student who is late from class for ten days in a semester is pushed out for one academic year.

Teacher Related Factors

The development of job-related vocational education and training as a paid service requires institutions to adopt new teaching methods and organizational changes (Atchoaena and Delluc, 2002:64). According to AU (2007:9), the delivery of quality TVET is dependent on the competence of the teacher: competence measured in terms of theoretical knowledge, technical and pedagogical skills as well as being abreast with new technologies in the work place. However, undoubtedly, the central problem in the development of technical and vocational education is the supply and the status of teachers (WB, 2002:24).

Lack of qualified teachers is one of the most acute problems in the educational systems of developing countries which lead students to dropout (Coombs, 1985). In a similar way, Tanguiane (1990), says that poorly trained teachers are among the potential causes for dropout of schools. Within modern-day international economic settings which is characterized by the high turnover of technology and production cycles, educational institutions could only be able to product human resources effectively if certain measures are adopted to build the capacity of teachers. Improved qualification of teachers, in turn, is an enabling factor for increased completion rates (MOE, 2003:20). On the other hand, Graham-Brown (1991), also indicated that school principals qualification experience and relevant training are among the most essential factor in enhancing and school performer and efficiency.

However, the quality of technical and vocational education is low, with undue emphasis on theory and certification rather than on skills acquisition in sub-Saharan Africa (AU, 2007:22). As cited in UNESCO-UNEVOC

(2004:21), qualified teachers are in chronic short supply in many African countries. It is also indicated that a qualified corps of TVET teachers/instructors represents the most severe obstacle to TVET development in Ethiopia (MOE, 2006:9). It is further noted that the quality of TVET teachers has suffered as a result of low reputation of their profession.

Most TVET teachers have relatively low formal qualifications, severely affecting the TVET delivery system. MOE (2008:45), explained that only 49.8 percent of all secondary teachers are qualified for their level of teaching. It further noted that although we do not yet have exact statistics is likely that TVET teachers may be even less qualified for their level of teaching.

Besides, TVET teachers are often unmotivated, hence, they did not choose to become TVET teachers, but are placed in TVET colleges because of in availability of options (MOE, 2006:10). Due to this, their impact is more limited than it could otherwise be. Moreover, it has been difficult to attract high caliber and motivated professionals to work inter alia because the sector had a low reputation and work condition were unattractive.

Although the provision of quality TVET is highly dependent on teachers' competence in terms of technical knowledge, TVET teachers are more academic than practical (WB, 2007:32). As cited in the national TVET strategy plan, the existing TVET teachers are (mostly) inappropriately practically skilled, i.e. not competent to provide TVET in accordance with the occupational standards (MOE, 2006:9). This is a result of a training system that long emphasized theoretical knowledge.

The shortage of sufficient teachers is also an important variable in either retaining or pushing students out of the school system. Bryk and Thum (1989), indicated that schools with serious staffing problems had higher dropout rates. On the other hand, the availability of sufficient qualified teachers improves the quality of education and has strong retention effect.

Despite the fact that qualified and experienced instructors are prevalent in TVET, there are inadequate training and retaining mechanisms. Lack of professional career prospects and salaries remained unattractive for long (MOE, 2006:9).

There is a strong correlation between teachers' experience and school characteristics. Schools with better qualified and experienced teachers' have strong holding power to enhance students' completion rate.

Empirical evidences show that teachers' experience and students' progress have a positive relationship. Strey (2001), indicated that higher percentage of qualified and experienced teachers' increase the likelihood that students remain in school. According to MOE (2005:30), high turnover of experienced teachers is one of the contributing factors to the low quality education. Such turnover, therefore, force the assigning of teachers with little or no experience in the relevant field.

A higher level of cooperation between teachers' and students seem to reduce dropout rates, and with regard to the academic climate (Strey, 2001). A research by Rumberger (1987:101), revealed that teachers provide an academic environment, and students' perceptions of this environment determine their achievement motivation and their academic behavior that leads to a lower likelihood of leaving school with out graduating.

As a whole, as cited in Pratt (1994: V), one loving, perceptive teacher is worth more to his/her students than the educational theory in the world. This emphasizes how teachers constitute the only profession that is responsible for working with all the members of an entire generation, with the intent of enhancing the well being of their students through the process of learning.

Lack of Guidance and Counseling

Students differ widely among each other. They learn at different rates, feel motivated in different ways, and bring different prior experiences to class. Thus, recognizing such diversities create a convenient atmosphere for the reduced dropout and effective teaching-learning process.

A dimension of school organization and student experience in school, associated with dropout, is the limited availability of positive social relationships and the lack of a climate of care and support (Husen and Thwaite, 1995). Similarly, Tilaye (1999:89), explained on the lack of guidance and psychological assistance in times of personal crisis is one of the reason for students' dropout. Besides, Wanna and Tsion (1994), argued that, proper guidance and counseling help students to cope emotional difficulties and restores their lost confidence and, thus, improves their academic performance.

Students face physiological and psychological problems while attending their education. Regarding this, Miller and Smiley (1967:67), emphasized that lack of guidance and counseling through the course of their study are among the major factors that force students to leave school. The most common problems that college students encounter in general are mental problems, stress and strain, frustration, inferiority and tension. But, unlike males, female students face in particular are, unwanted pregnancy, illegal abortion, sexual harassment, and rape and early marriage (Yusuf, 1998:28). Such peculiar natures, along with many other related factors, necessitated the importance of guidance and counseling for girls in particular (Tilaye, 1999:64).

Female students are exposed to multitudes of health problems. These include, unsafe sex practices in early ages that would expose them to sexually transmitted diseases including HIV/AIDS, early marriage, lack of awareness on the use of contraceptives, lack of openness to discuss personal problems with family members, teachers, and peers (Genet,

1991:46). Thus, the severity of the existing problems makes guidance and counseling services in educational institutions to be of a paramount importance (Yusuf, 1998:28). In contrast, lack of guidance and counseling leads to a substantial increase in dropout rates and, there by, failure in education (Valencia, 1991:65).

In a society where males are predominant, there is no doubt that women are under socialized groups of the society where their access to education is minimal. Tilaye (1999:80), in relation to this, contends that social factors that could contain the schooling of youth understudy include, peer group influence and early marriage followed by teenage pregnancy. He further stated that 32, 35.6 and 75 percent of girls discontinued their education due to peer pressure, arranged marriage, and lack of guidance and counseling services respectively. In a similar manner, Rose (1998), briefed the negative impact of early marriage towards school dropout.

Peer influence is also the major factor for dropouts. Researches reveal that peers exert a powerful influence on school dropout (Ianni, 1989 Cited in Valencia, 1991). Though peer influence on dropout failed to be the concern of many researchers, few studies reported that dropouts of both sexes are more likely to associate with external peers who could probably are dropouts long before (Delgado-Gaitan, 1986; Fine, 1986).

Therefore, the need to establish a proper guidance and counseling system is vital for withholding students.

Shortage of College Facilities and Instructional Materials

The availability of instructional materials and facilities has a significant impact on the academic performance and persistence of students in college. With this regard, World Bank's research report (1998), revealed that the scarcities of learning materials in classrooms have been the most serious impediments to educational effectiveness in Africa. In a similar manner, for Elleni (1995), students have tough and unpleasant times in school due to

budgetary problems. She further explained that the African schools are depressing; the class rooms have broken desks and chairs, with no ventilators and sanitation.

Practically, most educational institutions in Ethiopia are located at inconvenient sites (Fikre et al., 2002:56). The facilities available vary from one school to the other. The availability of school facilities such as volleyball, football, basketball, handball and gymnastic fields, separate toilets, water and sport materials creates conducive environment for the teaching-learning process. Improving the availability of these facilities, thus, appears to be useful in making learning more interesting and schools more attractive. Furthermore, there is no uniformity in the availability of school facilities throughout the country (Fikre et al. 2002:56). Tilaye (1999:82), took a brief look on this regard and found that about 66 and 58 percent of boys and girls respectively had left school due to inadequate supply of instruction materials and school facilities. He further noted that inadequate library service also appeared to be another major reason for dropout for about 57 and 58 percent of the boys and girls respectively.

The absence or shortage of sufficient materials in colleges deter students from learning and aggravates premature school leaving. In connection to this, Fikre et al., (2002:3), stated that the shortage of school facilities and instructional materials are accountable for a massive educational wastage in the form of dropout. Similarly, the scarcity of text books, blackboards, chalk, desks, chairs, and other teaching aid materials, in developing countries, affects students' performance and progress (Fikre et al., 2002:3).

Unlike others, the severity of the problem is vivid in TVET colleges. TVET colleges require sophisticated vocational education facilities which include complicated machineries, computers, and consumable. The inavailability of such practical teaching aid facilities in colleges, where 70 percent of their education is entirely practical based, results a failure towards producing practically attested competent human power. Atchoarena and Delluc (2002)

stated that TVET program in Ethiopia uses poor quality of instructional materials resulted from financial constraints. In a summarized way, MOE (2002:29) and Wanna (1998:62), pinpointed that:

> *"Though the enrollment capacity in the sector is rapidly increasing from time to time, the country's TVET programs success is highly affected by the absence of adequate equipments and facilities."*

On the other hand, Hanson and Cole (1966:355), reaffirmed that it is necessary first, to consolidate, that is, to fill up the gaps, and, build up the qualitative and quantitative deficiencies that exist in the present educational structure, and secondly, with regard to the resources available, to make a modest expansion in the system.

To sum up, shortage of college facilities and instructional materials are encouraging factors for students' dropout.

Absenteeism

Absenteeism is another institutional factor that makes good number of students to abandon schooling. In order to successfully complete their course of education, they are required to attend classes regularly.

However, students miss classes either for justifiable or unjustifiable reasons. But, no matter what the reason could be, absenteeism is undesirable encounter. According to Fikre et al. (2002:38), absenteeism affects the efficiency of any organization. It is also considered as a sign of educational failure and destabilizes the teaching–learning process.

Examining the reasons why students' dropout, Willis (1986), discusses that student attendee is one of the major indicators of educational risk. Regarding quality of education Chantavanich, Chantevancich and Fry (1990), revealed that school with, lower rate of absenteeism is considered more efficient than those with higher absenteeism.

The consequences of frequent absenteeism lead technical and vocational education and training college students to leave schools early. In TVET institutions, students are pushed by the schools out by the level of absenteeism. For instance, the Entoto TVET college published brochure (2000) describes that students who are absent from classes with out official permission for five consecutive classes in a semester will be expelled from college for one year. It is also evidenced that such disciplinary measure is also operational in all public TVET colleges of Addis Ababa.

Even though much absence from school is justifiable in grounds of illness (Husen and Thwaite, 1995), there are a number of associated factors to the subject. Low levels of academic achievement (Caliste, 1984) and high absenteeism (Bryk and Thum, 1989) are the strongest behavioral predictors of dropout (Strey, 2001).

On the other hand, research also shows that students who are less academically engaged-cut class, are absent, and have discipline problems in school-are also more likely to dropout (Esktrom et al., 1986). Related to this, it is noted earlier that student's willingness to direct efforts toward learning and performance on academic tasks is one of the reasons for students' academic difficulties that drive with in the school system. Similarly, Fine (1986), asserted that many dropouts attend schools with conditions that could affect their performance in school and ultimately their decision to leave.

Based on the above understanding, in education institutions like TVET, where the delivery system is characterized by low-quality and inefficiency, the impact of absenteeism towards increased dropout rate is viewed as a critical problem. As cited in Rumberger (1987:11), dropout might better be viewed as a process of disengagement from school, perhaps for either social or academic reasons.

Therefore, unless further efforts are made to explore the interrelationships among the web of factors associated with dropout, the rate would even become higher.

2.3.2 External (out of college) Factors

Extensive evidences exist to show that, apart from the characteristics of students and the conditions they encounter in school organizations, dropout of school is also affected by the larger environment in which students and schools are embedded.

Recent research continues to support the conclusions that the majority of college dropouts to be the consequences of socio-economic and socio-cultural factors in Ethiopia. These factors highly influence students' decisions to either stay or leave school.

Needless to say, Ethiopia is among the poorest countries where some 31 million people live below the defined poverty line (MOE, 2006:5). Rapid population growth constitutes a major barrier putting tremendous strains on the country's resource base, the ability to deliver services and the labor market. Thus, the country's deepened poverty has exacerbated the complexity of the problems of college dropouts. Unlike the institutional factors, it is difficult to manipulate many of the extraneous factors through policy interventions hence they are extremely bonded with societal factors. Studies (Tilaye, 1999; Husen and Thwaite, 1995), depicted that external factors severely discourage students to successfully accomplish their schooling.

Some of the major highly influential factors with this regard are,

Family related factors

As is the case with others measures of student achievement, family background exerts a powerful influence on dropout behavior (Husen and

Thwaite, 1995). The most widely studied aspect of family background is socio-economic status, which is typically a composite measure of a series of family demographic variables such as family income level, composition and parental education (Valencia, 1991:71). In local study, Sewnet (1995), asserted that parents are supposed to have great effects on the over all development of personality trait and they can play important roles in shaping the future career of their children.

The socioeconomic backgrounds of parents play an important role in the survival rate of students. Tanguiane (1990), has singled out poverty among the major factors that induce students to dropout. In a similar manner, UNESCO (1998), also reported that positive correlations exist between dropout rate and percentage of people living below the poverty line.

As cited in the national TVET Strategy (MOE, 2006:5), Ethiopia is among the poorest countries where 31 million people live below the poverty line. Similarly, the Addis Ababa City Government TVET Strategy (AACG, 2005:2) also indicated that the vast majority of the inhabitants of Addis Ababa (80 percent) are living below the poverty threshold. In view of this fact, one can imagine that, the country's deepened poverty has exacerbated the complexity of dropout of school.

According to UNESCO-UNEVOC (2006), the majority of dropouts belong to families of lower socioeconomic background. Similarly, Rumberger (1987:110), pointed that dropout rates are higher for students from families of low socioeconomic status, no matter what particular factors are used to measure socioeconomic status.

Available data indicate that students of lower socioeconomic status are predominant in TVET (ETF & WB, 2005:5). Similarly, according to AU (2007:16), the majority of students in Sub-Saharan Africa tracked in to low quality of technical and vocational streams belong to lower socioeconomic strata. Family socioeconomic status has already shown to influence dropout

behavior, largely through its effects on student academic achievement (Valencia, 1991:72).

Thus, although family related dropout of school is a world wide problem, it is particularly more serious in the developing countries (Ayalew, 1997:495). In many occasions, families tend to develop poor attitudes towards learning due to lack of occupational aspirations. According to Hyde (1989), labor market opportunities play a major role towards influencing parents on their decision to send students to school through providing academic encouragement. He further noted that, in situations where employment opportunities for graduate youth are minimal, parents tend to withhold their children from school with respect to TVET, students from poor family probably feel more pressure contribute to the family income and thus leave school to seek work in an earlier stage (Strey, 1995).

Family background has been shown to be a powerful predictor of other measures of student performance. Parents provide an academic environment, and students' perceptions of this environment determine their achievement motivations and their behavioral intentions (Husen and Thwaite, 1995). Schooling may be perceived as less relevant when students see no connection between the curriculum of the school and the culture of their families and neighborhoods (Rumberger, 1987:103).

Moreover, parents' attitude towards the essence of education is a major potential factor for greater dropout of school. In many occasions, families tend to develop poor attitudes towards learning due to lack of occupational aspirations. The AU (2007:8), also indicated that the public and even parents consider the vocational education track as fit for only the academically less endowed. Poor perception of TVET, thus, leads students to leave school early.

Various researchers (World Bank, 1980; Wanna and Tsion, 1994; Schieflbein and Ferrell, 1985; Patrinos and Psacharopoulos, 1996), asserted

that the chance of students' survival is entirely determined by the level of family income. The economic profiles of dropouts show that the problem is mostly prevalent among students from low level economic back ground. In a nutshell, there is a strong positive relationship between family income level and students' progress or academic status (Stvenson and Parker, 1987; Rosi, 1961).

As a socio-economic factor, parents' educational level is a crucial factor that influences students' survival rate in school (Hyde, 1989). According to him, educated parents are more likely to send their children to schools. Similarly Fassil et al., (1975), suggested that about 10 to 25 percent of the variation in achievement scores among students is the function of family socio-economic differences that can be measured in terms of education, economic and occupational level of parents.

Rumberger (1987:110) also pointed out that, particular family-related factors associated with dropout include low educational and occupational attainment levels of parents, low family income and single-parent families. A large percentage of dropouts come from broken homes (Miller and Smiley, 1967).

Similarly, the majority of dropouts more likely come from families in which the parents were divorced, had lower household incomes, and had fathers working in lower level occupations (Sullivan, 1998 as cited in Rumberger, 1987:110). Also, a conducted study revealed that students from families with lower incomes, with parents who had lower levels of educational attainment, and from parents who have little or no schooling themselves (Chernichovsky and Meesook, 1985).

Numerous studies have shown that children who grow up in single parents families are less likely to complete high school or to attend college than children who grow up with both parents (Amato, 1987). It is also indicated that children who live with single parents or stepparents during the young

age receive less encouragement and less help with school work than children who live with both natural parents (Astone and McLanahan, 1991:310). The absence of parents, however, is often combined with financial problems that might explain the dropout (Strey, 2001).

Family size also appears to influence dropout rates. Various studies (Fernandez et al.,1989; Rumberger, 1983) indicated that students from larger families tend to have higher dropout rates than students from smaller families.

On the other hand, well educated parents give more value to education and expect their children to become well educated too. Parents who themselves are educated may have a more enlightened attitude regarding their children education (Merga, 1999).

Although the availability of previous researches on the causes of family related dropout has been helpful in identifying the wide range of factors associated with this behavior, the empirical literature is still lacking. It has been argued that dropout data are probably the least reliable information available to day regarding TVET institutions. According to National Strategy, (MOE, 2006:35), relevant data regarding the impact of the existing TVET delivery systems, in terms of effectiveness and efficiency, are currently unavailable.

While large-scale statistical studies are able to demonstrate the importance of family background in influencing dropout behavior, generally they are unable to reveal exactly how this influence operates. This is because most large surveys usually ascertain structural characteristics of families-such as income, parental education, size, and composition-but little about family processes or mechanisms. Increasingly, research is now attempting to discover the various mechanisms through which families influence student achievement and dropout behavior (Valencia, 1991:73).

Therefore, the research efforts should be made to measure the long term, cumulative effects of the various influences on dropout. This is particularly important to identify the correlates of family background and early school leaving hence social related factors for dropout is closely associated with family background.

Unemployment

Many questions have been raised about whether technical and vocational education in Africa is suited to the real requirements of the productive system. Many observers are pointing to the underemployment rate among TVET graduates and the need for a better understanding of the school-to-work transition (Atchoarena and Delluc, 2002:47).

The first goal of the MDGs is the eradication of extreme poverty and hunger. The key to poverty alleviation is economic growth and the creation of employment for all (AU, 2007:18). The primary objective of TVET, as part of the countries poverty reduction plan, is the acquisition of relevant knowledge, practical skills and attitudes for gainful employment and sustainable livelihoods. The need to link training to employment (either self or paid employment) is, thus at the base of all the best practices and strategies observed world-wide (WB, 2002:19). Therefore, in order for countries to use TVET as a vehicle for sustainable economic development, the quality of TVET which is relevant to the needs of the labor market should be a critical issue of concern (Atchoarena and Delluc, 2002:45). In order to fully realize this, a credible TVET strategy must necessarily fit in to the country's socio-economic context.

However, the future of TVET program is generating heated debate nearly every where in the world including sub-Saharan Africa. To a large extent, this is related to the challenges of bringing teaching closer to the work place (ETF and WB, 2005:11).

In Ethiopia, large numbers of graduates coming out of TVET school system are unemployed, although opportunities for skilled workers do exist in the economy. Demand survey conducted on Tigray Region, for instance showed that many TVET graduates remain unemployed even in those occupational fields that show a high demand for skilled manpower (MOE, 2006:8). Similarly, the Education Sector Strategy Program outlined that the present situation reveals that most TVET graduates do not meet the expectations of the service and production sectors (MOE, 2005:16). It is further indicated that the major reasons for this as, a meaningful structure for steady adaptation to workforce demand is still missing, the input-oriented TVET programs still follow training system instead of workplace and labor market requirements.

Furthermore, the industrial development strategy of 2003, as cited in MOE (2006:6), highlighted that the existence of a depressed labor market and the impact of growth uncertainties contribute to shorten the strategic horizons of most employers. Hence, developing a practice of partnership and a culture of training seems to take more time than initially anticipated.

School characteristics have been investigated in research on school effectiveness and efficiency (Strey, 2001). This implies that, in order to be considered as viable social institutions, schools have the responsibility to meet the needs of the students. School benefits could be assessed in terms of knowledge and skills acquisition (out put) and how people are socially and economically productive due to their schooling (Simmons, 1980). In other words, outcome-based education and training is an important determinant of school continuation. When students perceive their participation and performance in school are connected to adult futures they value, then they are more likely to continue in school (Natrielo and Dornbusch, 1984).

However, the current technical and vocational training program in Ethiopia is supply-driven (MOE, 2006:7). This mode of training system is very often not designed to meet observed or projected market demands. The emphasis

appears to be on helping the unemployed to find jobs without any critical attempt to match training to available jobs. This situation has resulted in many TVET school graduates not finding jobs or finding themselves in jobs for which they have had no previous training.

Non-targeted skills development is one of the major weaknesses of the national TVET system. In this regard, MOE (2006:8), noted that there are indications that TVET lacks effectiveness towards improved market responsiveness of training programs.

Similarly, unemployment is also described as a major problem in Addis Ababa TVET colleges. As cited in AACG (2005:5),

> *The employers were often not satisfied with the outcome of training, they complain about the lack of practical skills of trainees as well as an inappropriate training content. As a consequence, certificates awarded in the formal training programs are not always equally accepted by employers.*

Moreover, training institutions also do not track the employment destination of their graduates. Consequently, valuable feed-back from past trainees on the quality of the training they have received has not been made practical. Research on the school-to-work transition is some what scarce. Due to this, detailed information about TVET activities concerning measures of internal efficiency, quality, and proportion of TVET graduates entering the workforce are not available (MOE, 2008:52).

Furthermore, job opportunities for TVET graduates have changed and become more and more uncertain as the focus has shifted to the formal and informal private sectors. Enterprises have more specialized requirements concerning the qualifications of the workforce, and this entails a redefinition of technical and vocational education. MOE (2006:8), on this regard indicated that programs, by-and-large, do not address actual skills needs in the private sectors, hence most programs are of low quality and theory driven due to resource constraints.

In a nutshell, the ultimate aim of TVET is employment. TVET programs, therefore, have to be linked to the job market (AU, 2007:35). In this way, the socio-economic relevance of TVET can be enhanced. In contrast, increased numbers of unemployed among the educated indicate an increasing mismatch between education and jobs (AU, 2007:22). Although the specific contribution of TVET programs to variables such as employability and better earnings isn't yet measured, the country's TVET system, as noted earlier, the current training programs have not yet been linked to the job market. Therefore, unless targeted skill development system is established, unemployment continues to be a potential factor for sizable college dropouts.

Generally, the predominant mode of TVET delivery in Ethiopia is supply-driven. Hence the ultimate objective of TVET is employability and employment promotion, it is necessary to link training to the needs of the labor market. TVET must be relevant and demand-driven rather than supply-driven and a stand-alone activity (MOE, 2006:24).

Gender Related Factors

The issue of gender is influenced by many determinants, such as race, culture, community, time, ethnicity, occupation, age, and level of education. In countries like Ethiopia, where gender imbalance is highly predominant, a gender-based approach should be mainstreamed in all sectors, including education. This doesn't mean that men and women will become the same. But, it is to imply that opportunities of men and women should not depend on their sex, and that, equal weight should be given to the knowledge, experience, and value of both men and women to increase the quality of their lives (National AIDS Council Secretariat, 2002).

One of the fields where gender discrimination is plain and tangible is the education sector (Marta, 2008:1). She further stated that it clearly emerges that women are victims of oppression and discrimination, starting from

educational and formative areas. Similarly, women are more affected by poverty and lack of resources and the 'knowledge gap' (AACG, 2005:4).

According to the World Bank report (1987:20), both women and men in Ethiopia are affected by scarcity of wage labor opportunities. However, women still remain highly disadvantaged. Women usually are bestowed with jobs related to clerical, nursing, janitorial works and few other similar light jobs (Genet, 1991).

Girls are under-represented in technical and vocational education, as in all sub sectors of the education system. Gender inequality where access to TVET is concerned reflects a gender-based division of labor and the low enrollment rate for girls the status that societies attribute to men (Atchoarena and Delluc 2002:43). A raped calculation for both cycles of secondary education (grades 9-12) shows that the Secondary Gender Parity Index (GPI) shows that the GPI for 2006-07 is 59.4 (MOE, 2007:44). This means that for every three students enrolled in secondary education, only one is a girl.

The genders in equalities in TVET imply that boys and girls are not prepared equally for integration into the labor market. The differential process of skill acquisition between men and women is due to the division of responsibilities and tasks between men and women based on a complex system of long-standing traditions and attitudes. In Ethiopia, women have few opportunities for wage earning employment, and women only account for under 15 percent of TVET enrollment (Atchoarena and Delluc 2002:43). In agriculture TVET institutions, which constitute 20 percent of the total TVET students' enrollments, female students account only 13 percent (MOE, 2007:48).

Shiundu (1999), on his part, explains that due to common gender stereotype feelings within the society, girls tend to develop a distorted perception on

themselves. On the other hand, Carr-Hill (2002:17), cited in this regard that women and girls hardly ever attend school even if they are enrolled.

In most cases, what matters is not only promoting females school enrollment, but also, most importantly, keeping them in schools (Habtamu, 2002). Despite this fact, females leave school early due to the existing societal factors. Studies (Rumberger, 1987; Ayalew, 1997; Tilaye, 1999; Taddesse, 2001; Nuri, 2008; Marta, 2008) in general revealed that the concern of gender issues play a significant role towards school dropout justified with a number of reasons.

In addition to the above mentioned factors, female students in TVET institutions leave colleges due to improper selection and placement. MOE (2007), data indicate that participation in some TVET courses seem to reflect gender stereotypes.

According to Bennel and Nyakonda (1992), marked differences are observed in employment patterns according to the area of training job opportunity for female TVET graduates in hairdressing, cook this could a major discouraging factor a sizable female students dropout.

In general, as cited in AACG (2005:4), women are more affected by poverty and the lack of resources and the 'knowledge gap'. Female headed house holds are over-represented in the group of the poorest house holds in Addis Ababa. The improvement of living conditions of women and to enable them to participate in political, social and economic life of Addis Ababa can be supported by TVET training and education.

CHAPTER THREE

3. RESEARCH DESIGN AND METHODOLOGY

3.1. The Research Design

A descriptive survey study is employed for the purpose of this study on the assumption that this method is relevant to describe both the currently existing situation and events of the past (Best and Kahan 2003). According to Seyoum and Ayalew (1989), a descriptive survey method is more effective to investigate the phenomena and assess the status in their specific natural setting. In addition, the method is also more appropriate to describe the trends that are progressing.

3.2. Population and Sampling Techniques

The target populations of the study were students who quit schooling in the selected government TVET institutions in Addis Ababa. For this purpose, only 2007/08 and 2008/09 academic years were included in the study. In addition, an academic staff was also included in the study as the researcher believes they are the reliable sources of information regarding dropout behavior.

TVET institutions currently existing in Addis Ababa are 98, out of which, 10 are governmental (5 at college and 5 at institution level), 78 private, 5 non governmental and 5 faith based organizations (MOE, 2007). Out of the 10 government TVET institutions, namely Entoto, Tegbare Id, General Winget, Nefas Silk, Higer 7, Akaki, Higher 4, Higher 20, Higher 12, and Misrak, the first 3 TVET institutions (all at college level) are selected for the study on the basis of purposive method (60 percent of the total government institutions). Samples were selected on the basis of the years of establishment and being well organized in institutional setting (representativeness).

Based on the institutions' statistical documents, out of the total enrollment (see Appendix D), 776 (males 334 and females 442) dropouts were registered during the last two consecutive years (2007/08 and 2008/09). As noted earlier, due to the constraints associated to finding dropouts, to the best of the researcher's maximum efforts made, 103 (59 males and 49 females) were found for the purpose of the study.

Moreover, within three TVET institutions selected for the study, 118 (94 males and 24 females teachers) were selected using stratified technique to secure fair representation. Also simple random sampling technique was used to select participants from both groups (i.e. male and female teachers) and 6 (3 college deans and 3 academic deans) were sampled which constitute 25 percent of total numbers of the teachers and 100 percent of deans and academic deans in the sample TVET colleges.

Table 1: List of TVET Colleges under study and selected samples

No	Name of TVET College	Total number of teacher			Sampled Teacher			percent
		M	F	T	M	F	T	
1	Addis Ababa	95	23	118	24	6	30	25.4
2	Enoto	162	45	207	41	11	52	25.1
3	General Wingate	114	28	142	29	7	36	25.4
	Total	371	96	467	94	24	118	25.3

Source: Sampled TVET Colleges' personnel department.

3.3. Instruments and Procedure of Data Collection

The study was conducted by using questionnaire at individual level (for dropout students, teachers, deans and academic deans) and documentary analysis as data gathering instruments.

The questionnaire was preferred to this study because it is the most appropriate means to involve the large sample population to collect the necessary information within a given time frame. Before developing the

questionnaire, however, related literature from books, and annual reports of MOE and documented registers were thoroughly examined.

Questionnaires were appropriately developed based on the information obtained from related literature and the experience of the researcher on the socio-economic and environmental background of the study area.

A separate questionnaire was prepared for the sampled dropouts and the teachers. The first part was used to collect information about personal characteristics of respondents. The second part was intended to secure information regarding the causes of students' dropout of college in the study area. In this regard 10 out of college factors, and 9 college related factors that could be regarded as possible causes for high rate of students' dropout in the study area were presented for the two groups for inquiry to indicate the extent of the influence of each factor towards students' dropout. Each item was constructed in five points scale alternative responses ranging from 5= very high to 1= very low (see Table 8 and 9). The mean score for each item was calculated using the median line (i.e. 3.0) as a dividing line; those items whose mean become below 3 were assumed to have less significant contribution to the problem. This helped to gather relevant information about major out of college and college related factors which appear to be causes of dropout.

The questionnaire prepared for deans and academic deans were also constructed into two parts. The first part was intended to elicit information about their educational background. In the second part, they were asked to list their own possible suggestions to reduce dropout problem.

The questionnaires were prepared originally in English and later translated in to Amharic for dropouts' convenience. This helped to check mistakes that might probably been done by the respondents due to misconception. The questionnaires prepared for 8 teachers were pre-tested on a pilot study carried on the randomly selected teachers in three colleges, which were

finally excluded from the sample. Similarly, the questionnaire prepared for dropouts was also pre-tested on some 11 dropouts.

After taking the necessary correction and preparation, the questionnaires were distributed to the respondents on the preset scheduled time with the kind collaboration of 12 student researcher assistants, after being equipped with the necessary orientation on how to distribute the questionnaires. It was intended to elicit information about the reasons that would be ascribed to students' dropout in TVET colleges of Addis Ababa.

Data concerning enrolment and dropouts were obtained from TVET registrar offices in the sample areas through direct contact. Two consecutive (2007/08-2008/09) academic years' data were used to show the magnitude and the trend (by sex) of dropout rate. Most of the data are presented in tabular form represented in actual numbers and percentages in data analysis and presentation section of this paper.

3.4. Variables Included in the Study

This study is measured by main dependent variable called dropout rate of TVET students. On the other hand, the determinants of dropout (in this case independent variables) were seen grouping them into two major categories: those related to the institution (college related factors), and those related to external factors (out college related factors) (See in Table 8 and 9).

3.5. Methods of Data Analyses and Interpretation

Depending on the nature of the problem and the data collected, different statistical methods were employed in this study for data analysis and interpretation.

The rate of dropout was calculated simply by adding the number of dropouts and dividing the sum by the total number of students enrolled in that

particular year or for particular sex. Percentage was also used to analyze various characteristics of respondents such as their personal background.

The mean scores were used to identify which of the item is rated above average to be considered among the major causes for students low survival rate in college. Based on mean value, to test whether there is significant difference between responses given by the two groups to out of college factors in their aggregate manner, the spearman's rank difference correlation was used. Similar statistical tool was also employed to test the respondents' opinion difference in their response to college related factors in their aggregate manner. In addition, Chi-square value (χ^2) also used to test the difference between the respondents' (dropouts and teachers) opinion in their response to each item given. To tolerate errors that come due to chance, the .05 level of significant was used.

CHAPTER FOUR

4. ANALYSIS AND INTERPRETAION OF THE DATA

This section of the thesis deals with the analysis of data gathered from sample TVET colleges' 2007/08-2008/09 dropouts, registrars of students' record offices, and academic staff which include teachers, deans and academic deans.

Total 220 respondents took parting the study; which include 103 dropout (59 males and 44 females), 111 teachers (males 89 and females 22) and 6 college deans and academic deans (all male) completed the respective questionnaires prepared in Amharic (for dropouts) and English (for academic staff) and returned to be employed used for data analysis.

4.1. Characteristics of Respondents

As noted earlier in, the subjects were academic staff and dropout students in the three sampled government TVET Colleges. In this topic, the background information of two groups, that is academic staff and dropout students are presented.

As it can be seen in Table 2, 103 dropouts were involved in the study and from this, 59 (57.3 percent) were male and 44 (42.7 percent) were female. With regard to their age, 1 (1 percent) 16 years and below, 67 (65 percent) and 28 (27.2 percent) of them were in the age interval of 17-19 and 20-22 year respectively while 7 (6.8 percent) of them were 23 or above years old. These indicate that the great majority (92 percent) of dropout students were in young age, which has a lot to do with different social, economic and cultural practices.

Background of Sampled Dropouts

Table 2: Dropouts Characteristics (n=103)

No	Items	Responses	
		No	%
1	Sex:		
	Male	59	57.3
	Female	44	42.7
2	Age: 16 years and below	1	1
	17-19 years	67	65
	20-22 years	28	27.2
	23 years and above	7	6.8
3	Marital status: Married	8	7.7
	Unmarried	94	91.3
	Divorced	1	1
4	At what level you dropped out?		
	10+1	33	32
	10+2	47	45.6
	10+3	23	22.4

Concerning their marital status, the overwhelming majority, i.e., 94 (91.3 percent) of them were single and only 8 (7.7 percent) of them were married and 1(1 percent) divorced. This result reveals a little association between being married and TVET College dropout problem. Besides, Table 2 also reveals that out of the total dropouts involved in the study, 33 (32 percent) of them left at 10+1 level and 47 (45.6 percent) of them left at 10+2 level and at 10+3 level 23 (22.4 percent) were left form college.

Table 3: Family Background of Sampled Dropouts (n=103)

No	Items		Responses			
			No	%	No	%
1	Parents' educational level:					
	Father (Guardian)	Mother (Guardian)	Father		Mother	
	Illiterate	Illiterate	7	6.8	19	18.5
	Traditional education	Traditional education	15	14.6	16	15.5
	Primary	Primary	24	23.3	24	23.3
	Secondary	Secondary	33	32	31	30.1
	College/University	College/University	24	23.3	13	12.6
2	Parents' livelihood:					
	Farming		5		4.9	
	Private business		60		58.2	
	Government employee		36		35	
	Others (Specify)		2		1.9	

As shown in Table 3, the majority of (79 percent) fathers' and (90 percent) mothers' of dropouts had educational level of secondary level and below. This depicts that low level of education among parents have considerable impact on their student survival in TVET College.

Regarding parents' livelihood of dropouts, 60 (58.2 percent), of dropout respondents had parents who are engaged in private business and 36 (35 percent), of them reported that their parents are government employee. And, 5 (4.9 percent) and 2 (1.9 percent) of respondents reported that their parents involved in farming and petty trades respectively.

Table 4: Sampled Dropouts' Family Structure (n=103)

No	Items	Responses	
		No	%
1	Are your parents alive?		
	Both of them are alive	67	65
	Both of them are not alive	7	6.8
	Only one of them is alive	29	28.2
2	How many individuals your parents support?		
	1-3 people	27	26.2
	4-6 people	66	64.1
	7 people and above	10	9.7
3	With whom do you live now?		
	With both parents	48	46.6
	With one of my parents	36	35
	With my spouse	3	2.9
	With relatives	11	10.6
	Living alone	5	4.9

As it can be seen from item number 1 of Table 4, the majority, 67 (65 percent) of dropouts under study indicated that both of their parents are alive while only 7 (6.8 percent) of them lost both their parents. And, 29 (28.2 percent) of dropouts reported that they live in a single parent family.

As shown in item number 2 of Table 4, the majority, 66 (64.1 percent) of dropouts were from families composed of 4 to 6 people, and 10 (9.7 percent) reported 7 and above while 27 (26.2 percent) of respondents said that their family size is between 1-3 people. As the study reveals that 76 (73.8 percent) dropouts were from large sized families. In line with this several studies (Fernandez et al., 1989; Rumberger, 1983) asserted similar findings.

From Table 4, it can also be seen that 48 (46.6 percent) of dropouts live with their biological parents, while 36 (35 percent) of dropouts live with one of their parents, and only 3 (2.9 percent) of dropouts live with spouses. A further 11 (10.6 percent) of dropouts live with extended families. Only 5 (4.9 percent) dropouts live alone helping themselves. In general, the study

revealed that parental composition has a little effect on dropout of TVET students. This finding, however does not confirm with other studies (e.g. Astone and Mclanahan, 1991:310; Amato, 1988).

Background of Teachers Respondents

Table 5: Characteristics of Sampled Teachers by Sex, Age and Educational Status (n=111)

No	Items	Responses	
		No	%
1	Sex:		
	Male	89	80.2
	Female	22	19.8
2	Age:		
	20-30 years	44	39.6
	31-40 years	21	18.9
	41-50 years	17	15.3
	51 years and above	29	26.1
3	Level of Education:		
	Diploma	17	15.3
	BA/ B.SC	75	67.6
	MA/ M.SC	19	17.1

As shown in Table 5, the vast majority, 89 (80.2 percent) of teachers involved in this study were male and the remaining 22 (19.8 percent) were female.

Regarding age, 39.6 and 18.9 percent of them ranged between 20-30 and 31-40 years respectively. And, 15.3 and 26.1 percent of them were between the ages of 41-50 and 51 and above years respectively. This indicates that the majority of respondents are in or above adult age category. In view of this, there is a belief that their response could be dependable.

With respect to sample teachers' educational level, the majority 67.6 percent had BA/B.Sc degree graduates while 17.1 percent reported to have MA/M.Sc. A further 15.3 percent reported to be at diploma level. This indicates that teachers with low qualification exist in the sample TVET

colleges. This may have its own impact on efficiency and quality education system. In relation with this, based on information obtained from National education abstract 48 percent of teachers are below the required qualification in TVET institution, and 69 numbers of teachers imported to teach TVET. Several studies suggested similar findings (Coombs, 1985; Tanguiane, 1990; UNESCO-UNEVOC, 2006:21; MOE, 2006:9)

Table 6: Service and Training Conditions of Sampled Teachers (n=111)

No	Items	Responses	
		No	%
1	Years of teaching experience in TVET College		
	5 years and below	42	37.8
	6-10 years	40	36
	11 years and above	29	26.1
2	Did you get relevant training in TVET Colleges?		
	Yes	64	57.7
	No	47	42.3

With respect to teachers' work experience in teaching, as indicated in Table 6, 36 and 26.1 percent of them have a service year ranging from 6-10 and 11 years and above respectively. Around 37.8 percent of teachers reported to have 5 years and below. Hence, the majority of sampled teachers have 6 years and above. Based on this understanding, the writer believes the selected teaches would provide reliable information.

Table 6, also shows that 57.7 percent of sampled teachers replied that they have relevant training to teach TVET, while 42.3 percent of them relied that they have no relevant training. This depicts that sizable teaches still lack relevant training. It is also reported that most TVET teachers lack practical trainings (MOE, 2006:9).

Background of TVET College Deans and Academic Deans

Table 7: Academic deans and deans characteristics (n=6)

No	Items	Response	
		No	%
1	Training in TVET Management: Trained	2	33.3
	Not trained	4	66.6
2	Deans and/or academic deans work experience in TVET		
	3 years and below	3	50
	4-6 years	2	33.3
	7 years and above	1	16.7
3	Service year in Teaching		
	3 years and below	2	33.3
	4-6 years	2	33.3
	7 years and above	2	33.3

From item number 1 of Table 7, it can be seen that amongst 66.6 percent of deans and academic deans involved in this study never attend any type of training related to TVET management while only 33.3 percent of them replied that they had training.

Table 7 also reveals that 50 percent of deans and academic deans' respondents served as a dean and academic dean for 3 years and below, and 4 years and above respectively while the service year of the deans and academic deans was found to be 50 percent. This shows the majority of them lack of long years of experience on TVET administration. But, the significance of training for school officials is regarded as a key for effective management (Graham-Brown, 1991).

About 66.6 percent of deans and academic deans have served 4 years and above in TVET colleges. Their contribution could be reliable like that of sampled teachers mentioned earlier.

4.2 Major Cause of Student Dropout of TVET College

One of the major objectives of this study was to investigate some major factors that contribute to student dropout in sample public TVET colleges of Addis Ababa. Thus, an attempt was made to identify some out-of-college and institutional factors that could result in significant contribution to students low survival rate in the educational system of sample TVET colleges. Accordingly, some 10 out-of-College factors and 9 College related factors have been identified to inquire the subjects and academic staff on how such factors contribute to the dropout problem. In computing the value of their responses, the writer has used different points that would represent the extent of the influence of each factor which can be justified as, 1= Very low, 2 = Low, 3 = Moderate, 4 = High, 5 = Very high.

4.2.1 Out of College Factors

Table 8: Major Extraneous Factors for College Dropping out

No	Items	Respondents	Response Value										Rank Order	Mean	χ^2
			1		2		3		4		5				
			No	%	No	%	No	%	No	%	No	%			
1	Poverty	Student	25	24.3	6	5.8	21	20.4	16	15.5	35	34	2	3.2913	16.117
		Teacher	8	7.2	11	9.9	36	32.4	25	22.5	31	27.9	2	3.5405	
2	Family Breakdown	Student	39	37.9	8	7.7	17	16.5	22	21.4	17	16.5	7	2.7087	39.801
		Teacher	4	3.6	17	15.3	32	28.8	33	29.7	25	22.5	3	3.5225	
3	Lack (Low) Employment opportunity	Student	22	21.4	8	7.7	20	19.4	19	18.4	34	33	1	3.3398	14.629
		Teacher	6	5.4	12	10.8	23	20.7	35	31.5	35	31.5	1	3.7297	
4	Parental inability to afford educational expense	Student	21	20.4	13	12.6	21	20.4	25	24.3	23	22.3	4	3.1553	16.599
		Teacher	8	7.2	27	24.3	34	30.6	29	26.1	13	11.7	5	3.1081	
5	Parent's level of education	Student	24	23.3	15	14.6	21	20.4	28	27.2	15	14.5	5	2.9515	11.048
		Teacher	12	10.8	25	22.5	31	27.9	35	31.5	8	7.2	6	3.018	
6	Students involvement in income generating tasks	Student	16	15.5	16	15.5	23	22.3	23	22.3	25	24.3	3	3.2427	
		Teacher	12	10.8	14	12.6	32	28.8	42	37.8	11	9.9	4	3.2342	12.895
7	Excessive involvement in family work	Student	25	24.3	16	15.5	21	20.4	22	21.4	19	18.4	6	2.9417	16.291
		Teacher	14	12.6	29	26.1	40	36	19	17.1	9	8.1	7	2.8198	

To be continued

8	Peer group influence	Student	28	27.2	20	19.4	29	28.2	12	11.6	14	13.6	8	2.6505	12.687
		Teacher	15	13.5	21	18.9	33	29.7	31	27.9	11	9.9	6	3.018	
9	Marriage	Student	46	44.7	28	27.2	13	12.6	12	11.6	4	3.9	10	2.0291	9.105
		Teacher	55	49.6	37	33.3	15	13.5	3	2.7	1	.9	9	1.7207	
10	Early age pregnancy	Student	45	43.7	19	18.4	18	17.5	11	10.7	10	9.7	9	2.2427	10.405
		Teacher	53	47.7	30	27	18	16.2	9	8.1	1	.9	8	1.8739	

Table 8 above presents the response of dropouts under study and sample teachers' response to the extent of major out-of-college factors that contribute to students' early college abandoning in sample TVET colleges. To begin with, the data in item number 1 of Table 8 shows that 49.9 percent of the dropouts and 50.4 percent of the teachers had cited poverty as a significant contributing factor to dropout. The cumulative averages (3.29 dropouts and 3.54 of teachers) indicate that the problem has influenced the majority of dropouts. However, it should be noted that although the result of the analysis variance revealed a remarkable variation, as both groups rated the item above average, it could be safe to deduce that poverty is one of the major causes of dropout in the study area.

Similarly, other studies also reported that there is a strong link between dropout and poverty (Tilaye, 1999; Husen and Thwaite, 1995; MOE, 2006:5).

Regarding the effect of family breakdown on student survival rate in educational system, 37.9 percent of dropouts and 52.2 percent of teachers indicated that its effect is high and very high. The cumulative averages (2.71 dropouts and 3.52 of teachers) indicate that the problem had a negative impact on students pertinence in school. This finding, does accord in line with other studies (e.g. Husen and Thwaite, 1995).

Regarding the effect of the lack of employment opportunity on students' survival in college, the majority 51.4 percent of dropouts and 63.0 percent of teachers reported that its effect is high and very high. The cumulative averages (3.34 dropouts and 3.73 of teachers) indicate that the problem has influenced students to dropout. Thus, it would be safe to deduce that lack of employment opportunity is one of the major causes of dropout in the study area.

The question of appropriate relationship between education and the world of work has been a matter of concern for students, parents, policy-makers,

politicians, etc. For those who manage TVET completion, the availability of employment opportunities increases the survival rate of TVET students and, on top of all; it will facilitate the efficiency of the country's education system. If the labor market gives more and better jobs for TVET graduates, poor perception of TVET would be avoided and parents may be initiated to make sacrifices in order to keep their children in college. However, in situations where employment opportunities shrink in the labor market, students continue to leave in college.

A number of studies also confirmed that lack of employment opportunities deprives students' confidence to complete schooling (Atchoarena and Delluc, 2002:45; ETF and WB, 2005:11; Natrielo and Dornbusch, 1984, Rumberger, 1987).

Respondents were also asked to indicate the impact of parental inability to afford educational expenses towards students' survival in TVET College. Regarding this, 46.6 percent of dropouts and 37.8 percent of teachers rated the item as high and very high. The cumulative averages (3.12 dropouts and 3.11 of teachers) indicate that the problem has influenced the majority of dropouts in that both groups rated the item above average. So, it could possibly be safe to deduce that parental inability to afford educational expenses is one of the major causes of dropout in the study area.

Other study findings represented a similar trend (Valencia, 1991:71; Strey, 1995:6698; World Bank, 1980; Wanna and Tsion, 1994; Schieflbein and Ferrell, 1985; Patrinos and Psacharopoulos, 1996).

Concerning the parental level of education, 41.7 and 38.7 percent of dropouts and teachers respectively indicated that its contribution to student dropout is high and very high. The cumulative averages (2.95 dropouts and 3.02 of teachers) indicate the problem influences dropouts behaviors. Other study also confirmed this notion (e.g. Hyde, 1989).

Concerning the effect of students' involvement in income generating tasks on the basis of students' survival in the educational system, 46.6 and 47.7 percent of dropouts and teachers rated as high and very high respectively. The cumulative averages (3.24 dropouts and 3.23 of teachers) indicate that the item was rated above average and it is safe to conclude that its role is regarded as an influential factor for college dropout. So far, no tracer study has been conducted at national level on this regard.

As far as the contribution of excessive involvement in family work is concerned, 39.8 percent of sampled dropouts and 25.1 percent of teachers rated high and very high respectively while 39.8 percent of dropouts and 38.7 percent of the teachers rated as low and very low. The cumulative averages (2.94 dropouts and 2.81 of teachers) indicate that the item appears to be an influential factor for college dropout. This result of this study is in conforming to other findings (e.g. Strey, 1995).

Concerning the effect of peer influence on students' survival in college, 25.2 percent of dropouts and 37.8 percent of teachers rated as high and very high while 46.6 percent of dropouts and 32.4 percent of the teachers rated as low and very low. The cumulative averages (3.02 dropouts and 2.65 of teachers) indicate the problem has influenced dropout behavior. This finding accords with other studies' findings (e.g. Ianni, 1989 Cited in Valencia, 1991).

Concerning the effect of marriage on dropout, the majority, 71.9 percent of dropouts and 82.9 percent of teachers rated as low and very low respectively. The mean values of the dropouts (mean = 2.0291) and the teachers (mean = 1.72) also assert that they rated below average to imply that the contribution of this factor to early school leaving in the study area is minimal. However, the finding do not accord with other studies (e.g. Husen and Thwaite, 1995; Rumberger, 1987:104)

Concerning the effect of early age pregnancy on students' survival rate, the majority, 62.1 percent of dropouts and 82.9 percent of teachers rated as low and very low respectively. Both of the respondents rated the item below average. So, it is safe to conclude that the impact of this factor for students' dropout is not significant. However, this finding do not accord with other studies (e.g. Husen and Thwaite, 1995; Rumberger, 1987:104)

The chi-square value(χ^2) of each item by dropouts and teacher respondents have been computed to reveal whether or not there is a significant difference between the two respondents on each socioeconomic factor. Based on the chi-square (χ^2) critical values for 4 degrees of freedom at 0.05 level of significance, the computed chi-square (χ^2) values of each item shows that there is significance difference for all except one, i.e. marriage. This exhibits that there is a strong association between respondents' opinion in response to the majority of the previously discussed variables (see Appendix F).

Furthermore, the study has attempted to compare the impact of out of college factors with respect to the rankings of the mean scores. Based on this, among 10 out-of-college factors, 1) poverty, 2) lack (low) employment opportunity, 3) parental inability to afforded educational expense, 4) students involvement in income generating tasks are rated above average by dropouts, indicating that these are the crucial factors, among many others, that contribute to high rate of dropout in the sampled government TVET college of Addis Ababa. The remaining factors were rated below average, which tells us that their contribution to the problem under discussion is not crucial.

Regarding teachers' respondents rankings of the mean scores rating order, among 10 out-of-college factors, they respond 7 items above average while 7 out of 4 items were responded similar to that of dropouts. But, the remaining two items, marriage and peer group influence, were rated below average. This asserts that both dropouts and teachers who were involved in

the study intimately agree on the type of factors which could possibly be the major influential factors for college dropout.

Having the relationship between the respondents opinion on each item in mind, an attempt was also made to examine the existing correlation between the respondents' opinion in aggregate manner. Accordingly, the spearman rank order correlation was employed (see Appendix E). The finding reveals the correlation coefficient to be 0.84. This indicates that there is strong association between respondents' response to the given items when they examined in their aggregate manner.

4.2.2. College Related (Institutional) Factors

Table 9: Major College Related Factors for Student Dropping out

No	Items	Respondents	Response Value										Rank Order	Mean	χ^2
			1		2		3		4		5				
			No	%	No	%	No	%	No	%	No	%			
1	Traveling long distance from home to college	Student	10	9.7	17	16.5	16	15.5	20	19.4	40	38.8	3	3.6117	4.476
		Teacher	8	7.2	12	10.8	20	18	33	29.7	38	34.2	2	3.7297	
2	Curriculum irrelevance	Student	13	12.6	15	14.6	18	17.5	17	16.5	40	38.8	4	3.5437	2.8676
		Teacher	12	10.8	17	15.3	25	22.5	24	21.6	33	29.7	4	3.4414	
3	Shortage of qualified teachers	Student	37	35.9	28	27.2	19	18.4	12	11.7	7	6.8	9	2.2621	2.319
		Teacher	32	28.8	31	27.9	21	18.9	20	18	7	6.3	8	2.4505	
4	Low qualification of teachers	Student	32	31.1	22	21.4	28	27.2	7	6.7	14	13.6	8	2.5049	15.343
		Teacher	30	27	39	35.1	27	24.3	13	11.7	2	1.8	9	2.2613	
5	Lack of guidance and counseling services	Student	9	8.7	12	11.7	22	21.4	15	14.6	45	43.6	2	3.7282	9.935
		Teacher	14	12.6	12	10.8	28	25.2	29	26.1	28	25.2	5	3.4054	
6	Inadequate supply of instructional material and other facilities	Student	22	21.4	25	24.3	25	24.3	11	10.6	20	19.4	7	2.8252	5.642
		Teacher	22	19.8	21	18.9	32	28.8	22	19.8	14	12.6	7	2.8649	
7	Lack of teachers' encouragement for students	Student	14	13.6	15	14.6	23	22.3	20	19.4	31	30.1	6	3.3786	5.235
		Teacher	18	16.2	24	21.6	24	21.6	25	22.5	20	18	6	3.045	
8	Absenteeism	Student	20	19.4	11	10.7	17	16.5	19	18.4	36	35	5	3.3883	15.959
		Teacher	8	7.2	13	11.7	22	19.8	42	37.8	26	23.4	3	3.5856	
9	Selection and placement problem	Student	16	15.5	7	6.8	9	8.7	16	15.5	55	53.4	1	3.8447	12.749
		Teacher	8	7.2	4	3.6	24	21.6	26	23.4	49	44.1	1	3.9369	

As it can be seen in item number 1 of Table 9, the vast majority of the dropouts (58.2 percent) and teachers (63.9 percent) indicated that one of the challenges for college pertinence is the location of colleges. The cumulative averages (3.61 dropouts and 3.73 of teachers) indicate that both of the respondents rated the item above average. This reveals that the effect of this factor is very acute. The study finding relates to various studies (e.g. Strey, 2001; Pittman and Haughtwout, 1987; Valencia, 1991:75).

Pertaining curriculum irrelevance, the majority of the respondents, 55.3 percent and 51.3 percent of dropouts and teachers rated high and very high respectively. The calculated average of dropouts (mean=3.54) and that of the teachers (mean= 3.44) depict that irrelevant curriculum is one of the problems related to dropout behavior. This study showed similar result with other studies (e.g. Taddesse, 1974).

Concerning the effect of shortage of qualified teachers on students' survival in TVET College, the majority of respondents, 63.1 percent of dropouts and 56.7 percent of teachers rated its role as low and very low respectively. The mean values of the dropouts (mean=2.26) and the teachers (mean= 2.45) respondents also rated the item below average. This denotes that the contribution of this factor has a minimal relationship to TVET College leaving.

In view of the results of this study, the shortage of qualified teachers showed inconsiderable effect in exacerbating college dropout rate. In contrast, the national education abstract report confirms that shortage of qualified teachers is a severe national problem at all level of education (MOE, 2003:20). Similarly, the finding does not accord in line with other study results (AU, 2007:9; Tanguiane, 1990; Bryk and Thum, 1989).

Respondents were also asked to indicate the extent of the impact of low qualification of teachers on student survival rate in TVET colleges. As it can be seen from item number 4 in Table 9, the majority of respondents, 52.5

percent of dropouts and 62.1 percent of teachers, rated the item as low and very low. The calculated average means of the dropouts (mean= 2.50) and that of the teachers (mean=2.26) depict that the dropouts perceived this factor as serious problem than the teachers did. The findings however do not go in line with other study results (AU, 2007:9; Tanguiane, 1990; MOE, 2003:20; Bryk and Thum, 1989).

As far as the effect of absence of guidance and counseling service in TVET College dropout is concerned, the majority, 58.2 percent of dropouts and 51.3 percent of teachers reported as high and very high respectively. The calculated means of the dropouts (mean= 3.72) and teachers (mean=3.41) depict that absence of guidance and counseling service is the serious problem in the study area. Other studies also present similar findings (Husen and Thwaite, 1995; Tilaye, 1999:89; Wanna and Tsion, 1994).

Pertaining inadequate supply of instructional materials and facilities, 30 percent and 32.4 percent of dropouts and teachers rated its contribution to dropout in TVET colleges as high and very high respectively. While, only 45.7 percent of the dropouts and 38.7 percent of the teacher respondents rated the item as low and very low respectively. The cumulative averages (2.83 dropouts and 2.86 of teachers) also indicate that both of the respondents rated the item above average which shows that this factor is among the major causes for student early school leaving. So, the study finding didn't accord in line with other studies (Fikre et al., 2002:3; MOE, 2002:29 and Wanna, 1998:62).

Regarding lack of teachers' encouragement for students to pursue their college, 49.5 percent and 40.5 percent of dropouts and teachers respectively replied that its impact is high and very high. The calculated mean scores of the dropouts (mean=3.38) and the teachers (mean =3.05) were rated above average, indicating that lack of teachers' encouragement has a considerable effect on dropout of students. Similar findings are observed in other studies (e.g. Husen and Thwaite, 1995; Tilaye, 1999:89).

Concerning the link between absenteeism and student dropout behavior, the majority of respondents, 53.4 percent of the dropouts and 61.2 percent of teachers rated as high and very high respectively. The mean scores of the dropouts (mean= 3.39) and the teachers (mean=3.59) reveal that both groups rated the item above average. Other findings accord with this study result (e.g. Fikre et al., 2002:38; Willis, 1986; Chantavanich, Chantevancich and Fry, 1990).

Pertaining link between selection and placement and dropout behavior, 68.9 percent and 67.5 percent of dropouts and teachers rated the factor to be high and very high respectively. The mean scores of the dropouts (mean=3.84) and the teachers (mean= 3.94) reveal that both groups rated above average indicating that this factor contributes a lot towards the problem under discussion. Rumberger (1987); Husen and Thwaite (1995), Wehlage et al., (1989) also reported similar results.

The chi-square (χ^2) value of each item by dropouts and teacher respondents have been computed to reveal whether or not there is a significant difference between the two respondents on each institutional factor. Based on the chi-square (χ^2) critical values (in 4 degrees of freedom at 0.05 level of significance), the computed chi-square (χ^2) values of each item in Table 9 of item number 4, 5, 8, and 9 were noted to be greater than table value. This shows that there is significant difference between respondents' opinion in their response. However, item number 1, 2, 3, 6, and 7 were observed less than table value which reveal that there is no significant difference between the two respondents(see Appendix F).

Similarly, the study has attempted to compare the impact of college related factors with respect to the rankings of the mean scores. As a result, among 9 school related factors (mean score of 3.0 as an average) students ranked 1) college location, 2) irrelevant curriculum, 3) lack or absence of guidance and counseling service, 4) lack of teachers' encouragement for students, 5)

absenteeism, and 6) selection and placement problem above average to depict that these are among the major institution factors that push out of the school system. The remaining factors were rated bellow average, which indicate that their contribution to the issue under discussion is not significant.

Regarding teachers' respondents rankings of the mean scores, alike the dropouts, they rated the above discussed six factors as above average while the remaining to be below average. This asserts that both students and teachers who were involved in this study intimately agree on the variables to be factored as the major causes of dropout.

By observing the relationship between respondents opinion on each factor, an attempt was also made to examine the existing correlation between their opinions in aggregate manner. The spearman rank order correlation was used for this purpose. The finding reveals the correlation coefficient to be 0.87 (see Appendix E). This reveals that there is strong association between respondents' response to the given items when they are examined in their aggregate manner.

4.3. Suggestions to Reduce Dropout

The sample TVET college deans and academic deans were asked to indicate what should be done to reduce dropout from TVET institution of the study area. The question posed to them was that what measures do you suggest to be taken by a) the Government, b) the parent to reduce high rate of dropout in TVET College? Regarding major actions to be taken by government the deans and academic deans mentioned the following:

1) Obsolete courses must to be identified and dropped in a phased manner
2) Courses must to be restructured based on labor demand

3) A demand survey must to be conducted before introducing any new course
4) The relative weight of academic and vocational subjects must to be revised
5) The curricula of subjects need to be revised
6) Laboratory and library facilities should be put in place that best suit the existing technologies
7) Casual and temporary appointment of teachers must to be done away with so as to have continuity in the teaching of subjects.
8) Selection and placement based on the interest of student rather than academic result

As to measure to be taken by parents, deans and academic deans' recommendations could be summarized as:

Family school relationship has to be enhanced; hence, parents influence dropout behavior directly or indirectly, by influencing other antecedents of dropout behavior such s academic achievement.

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary of Major Findings

This study was conducted with the intention of identifying the nature and causes of dropout problem in sample government TVET colleges of Addis Ababa. The main purpose of the study was to investigate the magnitude of the problem (dropout) in TVET colleges. It also attempts to probe the major factors which result students to dropout of college, and finally, proposing programmatic remedies to alleviate the problem.

The study was carried out in three government TVET colleges of Addis Ababa. The subjects of the study were 103 (in 2007/08 and 2008/09) dropouts and 111 academic staff which include teachers, academic deans and college deans.

Data were obtained through questionnaire from the dropouts, teachers, deans and academic deans. Moreover, relevant documents were also gathered from the sample TVET College registrars' offices, and MOE. Data were analyzed using various statistical tools such as percentage, the mean score, chi-square (χ^2) of association and the spearman's rank-order correlation coefficient.

Depending on the result of the analysis made, the following major findings were obtained:

1. Based on the study findings, the sample TVET colleges' dropout rate was found to be 6.0, 5.2, 5.2 and 4.4, 17.1, 5.8 percent for Entoto, General Winget, and Addis Ababa Tegbare Id TVET

colleges respectively during the last two consecutive academic years (2007/08-2008/09). The highest rate of dropout observed in General Winget was due to the fact that, unlike others, General Winget TVET College has a relatively better data documentation system. Having the deficiencies of students' profiles recording system in mind; the writer believes the dropout rate could even be higher (see Appendix D).

2. In absolute number, however, the total number of dropouts which was 213 in 2007/08 academic year has become 563 in 2008/09 academic year (see Appendix D).

3. Public expenditure per TVET student in Ethiopia is 475 US Dollar, which is much higher, by a factor of 3 to 4, than those for general education. Similarly, expenditures per TVET student were approximately 21 times as much as for primary students (1-8). This, invariably, shows the expensiveness of TVET programs. Here, the concern for college dropout is predicated on a belief that leaving TVET institutions before graduation is worse for the individual, the society, and the country at large. In view of this, the urgency of TVET dropout warrants attention.

4. The findings of the study have shown gender stereotyping that the rate of dropout is relatively higher among girls than boys in the sampled TVET Colleges.

5. Regarding dropouts' characteristics, 103 of the total dropouts involved in this study. The great majority, i.e., 65 percent were between the ages intervals of 17-19 years. Regarding their marital status, the overwhelming majorities 91.3 percent were unmarried. This shows that the majority of dropouts are within the productive age group.

6. Family background information of dropouts also showed that a high proportion (79 percent) of father and (90 percent) of mothers' of dropouts' level of education were found to be secondary education and below it. Similarly, high percentages (58.2), of dropouts' families appear to engage in private businesses.

7. Dropouts' family structure also indicated that the majorities (65 percent) of their parents are alive, and a significant number of dropouts, that is 28.2 percent, are from single parent families. Moreover, 73.8 percent of dropouts' family's size was found to be 4 and above.

8. Regarding teacher's characteristics, of the total teachers involved in this study, the majorities (67.6 percent) are BA/B.Sc graduates and a further 15.3 percent are at diploma level. In relation to this, the Education Statistics Annual Abstract (MOE, 2008:45), indicates that more than 49.8 percent of TVET Colleges' teachers were below the desired qualification level. Moreover, it was found that only 57.7 percent of teachers' respondent had special training to teach TVET education.

9. Regarding teachers' work experience, about 37.8 percent of teachers served 5 years and below while 36 percent was between 6-10 years.

10. As far as college deans and academic deans are concerned, 4(66.6 percent), of them were not trained in TVET management and about 3(50 percent) of them had served less than 3 years. And 3(33.3 percent) of them had a teaching experience in TVET colleges.

11. The dropouts under study ranked the major out-of-college factors poverty, lack (low) employment opportunity, parental inability to

afforded educational expense, and students' involvement in income generating tasks as above average (3.0) depicting that these are the major out-of-college factors that contribute to high rate of dropout. The remaining items which include family breakdown, parents' level of education, excessive involvement in family work, peer group influence, marriage and early age pregnancy were rated below average to indicate that they are less likely to contribute for dropout problem. For teachers', poverty, family breakdown, lack (low) employment opportunity, parental inability to afforded educational expense, parents' level of education, students involvement in income generating tasks, peer group influence are rated as above average while the rest were below average. The correlation coefficient (r=0.84) also shows that there is strong relationship between the two respondents in their opinion in aggregate manner of the items.

12. Out of the 9 college related factors, the sample dropouts rated college location, irrelevant curriculum, lack or absence of guidance and counseling service, lack of teachers' encouragement for students, absenteeism, and selection and placement problems were ranked above average. Like wise, teachers rated the above mentioned variables similar to that of dropouts. The correlation coefficient (r =0.87) also shows that there is strong relationship between the two respondents in their opinion in aggregate manner of the items.

5.2 Conclusion

Depending on the above major findings, the following conclusions are drawn:

The study disclosed that the majority of dropouts are found to be living with their parents. Hence, it is possible to deduce that the family structure

(which refers parental existence in life) showed no considerable effect in exasperating TVET College dropping out. Perhaps it may be reasonable to say that the type of guardian with whom school children live matters more than living with parents or their parents being alive or not.

In the study, the analysis of major causes of dropout reveals that poverty, family breakdown, lack or low employment opportunity, parental inability to afford educational expense, parents' level of education, students involvement in income generating tasks, excessive involvement in family work, TVET college location, curriculum irrelevance, lack of guidance and counseling, lack of teachers' encouragement for students, absenteeism, selection and placement are among the major influential factors for dropout of students. Therefore, from this, we can conclude that curriculum irrelevance, lack of employment opportunity, shortage and low qualification of teachers and locations are problems under study. In other words, the problems are stemmed from both the supply side and the demand side.

Out of the total 19 factors considered in this study, the chi-square (χ^2) tests proved that the differences between the opinions of respondents (both dropouts and teachers) reported significant differences for 13 factors only (see Table 8 and 9). However, the strength of the evidence for the remaining factors proves that there is no significant difference between the two groups. This shows that there exists high degree of mutual agreement between the two groups of respondents in choosing the factors for dropout. This is also reaffirmed by the result of correlation coefficient.

In a summary, the analysis of the mean scores for 9 college related factors reveals six factors to be rated above average (3.0) which shows that the major factors for college dropout tend to underlie more on institution based. From this, therefore, it is safe to conclude that college related factors are regarded as the most prevalent causes than socioeconomic constraints (external factors).

5.3 Recommendation

Based on the literatures reviewed and the findings of this study, the writer recommends the following:-

- Assure employability of trainees: - the findings of this study revealed that lack of employment prospects was the major cause for sizable students' dropout. Hence, assuring employability of trainees should begin with effective guidance and counseling of trainees including the choice of training programs in relation to their interests and academic back ground. Besides employability presupposes the acquisition of employable skills that are related to the demands of the labor market. Further more, tracer studies which track the destination of graduates in the job market should be made in order to provide useful feed back for the revision of training programs. This, in turn, enhances the employability of trainees. Besides, to establish strong linkages and collaboration with employers and industry should also be strengthened.

- Make curriculum relevant to the world of work: - the study has also revealed that one of the major causes of college dropout is irrelevance of the curriculum. Thus, in order to promote the quality of TVET, curriculum should be designed to meet observed or projected labor market demands. Hence, the ultimate objective of TVET is employment; curriculum should ensure targeted skills development. In order to make curriculum relevant to actual employment, key stake holders which include employers, trainees, trainers, families, government sector etc...should be involved starting from the onset of the planning process.

- Enhance status and attractiveness of TVET programs: - TVET should be promoted as a tool for economic empowerment in the country.

  The notion that parents' and the society consider the vocational education track as fit for only the academically less endowed

should be avoided. In order to avoid such misconceptions, the government should focus towards provision of flexible and demand-driven training, and establish mechanisms to enhance the level of awareness motivation campaigns. Thus, TVET programs would be able to serve as venue for poverty alleviation. This strengthens students' motivation to join the vocational education track, not as a matter of option, but a matter of necessity. The involvement of community, parents and guardians should be consolidated.

- Recruiting qualified and competent teachers in sufficient level:

  - Teachers' competence should also be measured in terms of theoretical knowledge, technical and pedagogical skills as well as being abreast with technologies in the work place.

- The distribution of the training institutes should be balanced through expansion of TVET programs in order to avoid problems associated to accessibility.

BIBLIOGRAPHY

Addis Ababa City Government (2005). Technical and Vocational Education and Training (TVET) Strategy. AA: AACG.

African Union (2007). Strategy to Revitalize Technical and Vocational Education and training (TVET) in Africa. AAU

Ahier, J. and Esland, G. (1999). Education, Training and the Future of Work I: Special, Political and Economic Context of policy Development. New York: The Open University Press.

Amato, P .R. (1987). "Family Processes in One-Parent, Stepparent, and Intact Families: The Child's Point of View." Journal of Marriage and the Family 49:327-37.

Astone, N. and McLanahan, S. (1991). "American Sociological Review." Vol. 56, No-3.

Atchoarena, D.and Delluc, A. (2002). Revising Technical and Vocational Education Sub-Saharan Africa: An Update on Trends, Innovations and Challenges. Paris: UNESCO Publishing.

Ayalew Shibeshi (1997). Policy Implications of the Dropout Rates in Ethiopia Schools. In Fukui, K; Kurimoto, E. and Shegeta, M. Ethiopian in Broader Perspective, Papers of the XIIIth International Conference of Ethiopia Studies. Kyoto: Nakamishi Printing.

Becker, S.G. (1975). Human Capital:-A Theoretical and Empirical Analysis, with Special Reference to Education (2nd ed.). New York: National Bureau of Economic Research.

Bennell, P.; Nyakonda, D.(1992). "Training for self-employment? The Performance of Rural Training Centers in Zimbabwe". In: International Journal of Educational Development. Vol.12, No.2. Oxford: Pergamon.

Best, W and Kahn, V. (2003). Research in Education. New Delhi, Prentice-Hall of Idea.

Bishop, G. (1989). Alternative Strategies for Education. London: Macmillan Education, Ltd.

Bryk A.; Thum Y. (1989). "The effects of high school organization on dropping out: An exploratory investigation". American Educational Journal Research. 26(3):353-83.

Caliste, E. R. (1984). "The Effect of Twelve Week Dropout Intervention Program." Adolescence 19:649-57.

Carr-Hill, R. (2002). State of the Art-review of Relevant Literature, Draft Document Prepared within the Frame Work of the Joint IICBA/UNESCO and UNICEF, Study on "Education for Nomads in East Africa." Paris: UNESCO/IIEP.

CDRP (2008). "California Dropout Research Project." USA: University of California Press.

Chantavanich, A. S. Chantavanich and G. Fry (1990). Evaluating Primary Education Qualitative and Quantitative Policy studies in Thailand. Ottwa, IDRC.

Chernichovsky, D. Meesook, O. A. (1985). School Enrollment in Indonesia. World Bank, Washington, DC.

Coombs, P.H. (1985). "The World Crisis in Education: The View from the Eighties." New York: Oxford University Press.

Delgado-Gaitan, C (1986). "Adolescent Peer Influence and Differential School Performance." Journal of Adolescent Research, 1. pp.449-62.

Dorn, S. (1996). Creating the Dropout: An Institutional and Social History of School Failure. NY: Greenwood Publishing Group.

Ekstrom R.B, Goertz M E, Pollack, J. M, Rock, D. A. (1986). "Who drops out of high School and Why? Findings form a national study." Tech. Coll. Rec. 87(3): 365-73.

Elleni Tedla (1995). Sankofa: Africa Thought and Educations. New York: Peter Lang.

Entoto Technical and Vocational Education and Training College, Research and Publication Section (2000) "Trainees Directive". Addis Ababa (Unpublished).

ERGESE, (1986). "Evaluation of Research of the General Education System in Ethiopia." Addis Ababa. EMPDA.

ETF & WB (2005). Reforming TVET in Middle East and North Africa: Experiences and Challenges. The World Bank.

Fassil G.K. et al. (1975). Educational Outcomes Measurement in Developing Countries. Washington D.C.: Georgetown University.

Fernandez, R.M. Paulesen, R. and Hirano-Nakanishi. M. (1989). Dropping out among Hispanic youth, Sockial Sience Rsearch. Vol. 18. pp.21-52.

Fikre et al. (2002). "Educational Wastage in Five Regions of Ethiopia." Addis Ababa: ICDR.

Fine, M. (1986). "Why Urban Adolescents Drop into and out of Public High School." Teachers College Record, 87, 339-409.

Genet Zewdie.(1991). "Women in Primary and Secondary Education". Gender issues in Ethiopia, AAU, IER.

Graham-Brown, S. (1991). Education in Developing Word: Conflict and Crisis. London: Longman Inc.

Grant, C.A., & Sleeter, C. E. (1986). "Race, Class, and Gender in Education Research: An Argument for Integrative Analysis." Review of Educational Research, 56, 195-211.

Habtamu Wondimu (2002). "A Study of Dropouts in Selected Primary School of Two Regions in Ethiopia" The Ethiopian Journal of Education. Vol. XXII, No.2, 65-93.

Hanson, J.W. and Cole S. B. (1966). Education and the Development of Nations, London: Holt, Rinehart and Winston Inc.

Husen, T. and Thwaite (eds) (1995). International Encyclopedia of Education. 3rd, Vol.3, 1603-1611. Japan: ELSE Vier Science LTD.

Hyde, K.A.L (1989). Improving Women's Education in Sub-Saharan Africa: A Review of the Literature. Washington DC: World Bank.

Marta Schifano (2008). Gender and TVET in Ethiopia. Master Printing Press. Addis Ababa.

Merga Feyissa (1999). "Factors that Contribute to Female Student's Grade Repetition in Secondary Schools of Jimma Zone." Unpublished MA Thesis, AAU.

Miller, L. H. and Smiley, B. M. (1967). Education in the Metropolis. New York: Collier-Macmillan Limited.

MOE (2002). Educational Sector Development Program (ESDP-II): Program Action Plan. Addis Ababa: MOE.

_____(2003). Teacher Education System Overhaul (TESO). Hand Book, Unpublished.

_____ (2005). Educational Sector Development Program (ESDP-III): Program Action Plan. Addis Ababa: MOE.

_____(2006). National Technical and Vocational Education and Training (TVET) Strategy. Unpublished draft for discussion: Building Ethiopia. Addis Ababa.

_____(2007). Educational Statistics Annual Abstract. Addis Ababa: EMIS-MOE.

_____(2008). Educational Statistics Annual Abstract. Addis Ababa: EMIS-MOE.

Morrow, G. (1987). "Standardizing Practice in the Analysis of School Dropouts." In: Natriello G (ed.).

Moura Castro, C.(1999). The stubborn trainers' vs. the neoliberal economists: will training survive the battle? Washington, DC: Inter-American Development Bank.

National AIDS Council Secretariat (2002): "HIV/AIDS Communication Frame Work:" Secretariat (NACS) Pact-Ethiopia UNAIDS. HAPCO Printing.

Natriello G, Dornbusch S.M.(1984). Teacher Evolution Standards and Student Effort. New York: Longman.

Natriello,G.et al. (1985). "School Reform and Potential Dropouts Educational Leadership." 43(1).

Nuri Dilbeto (2008). "Factors Influencing Female Dropout in Some Selected Secondary Schools of Arsi Zone." Unpublished MA Thesis, AAU.

Patrinos H.A. and Psacharopulos, G.(1996). "Socio-economic and Ethnic Determination of Age-grade Distribution in Bolivia and Guatemalan Primary Schools." International Journal of Education Development. Vol. 16, No.1.

Pittman, B. P. Haughtwout, P. (1987). "Influence of high school size on dropout rate. Educational Evaluation and Policy Analysis." Vol. 9: 337-43.

Pratt, D.(1994). Curriculum Planning: A Handbook for Professionals. Harcourt Brace College Publishers.

Rose, P. et al. (1998)."Gender and Primary Schooling in Ethiopia." Research Report, England: Institute of Development Studies.

Rosi, P.H. (1961). Social Factors in academic Achievement: A Brief Review an Halsey, A.H and Floud, J. and Aderson, Ac (eds) Education Economy and Society. New York: Free Press of Glencoe, Inc.

Rumberger, R.M.(1983). "Dropping out of high school: The influence of race, sex, and family background." Americana Educational Research Journal. Vol.20: 337-43.

_____ (1987). "High School Dropouts, a review of Issues and Evidence." Review of Educational Research. Vol.57, No.2.

Schiefeblbein, E. and Farrell, J.P.(1985). Eight Years of Their Lives: Through Schooling to the Labor Market in Chile. Ottawa: IDRC.

Sewnet Mamo. (1995). Some Factors Affecting Scholastic Achievement of Elementary School Pupils. Unpublished M.A. Thesis, Addis Ababa University.

Seyoum Teferra and Ayalew Shibeshi(1989). "Fundamentals of Educational Research for Students and Beginning Researchers" Unpublished Instructional Material, AAU.

Shiundu, O.J. (1999) "Wastage in Education A Synthesis of Causal Factors and Strategic Interventions." Kenyatta University, Nairobi, Kenya. A Paper Presented to MOE and Faculty of Education.

Simmons, J. (1980). The Education Dilemma Policy Issues for Developing Countries in the 1980's. Oxford: Pergamon Press.

Stvenson, D.L. and Parker, D.P (1987). "The Family School Relation and the Child's School Performance Child's Development," Vol. 68(5).

Strey, A.(2001). High School Dropout. International Encyclopedia of Social and Behavioral Sciences. Vol.24:6697-6700. N.J. Smelser and P.B. Baltes (eds) GB: Tree Press Ltd.

Taddesse Mengesha (1974). "Primary School Dropouts in Rural Ethiopia Planning and Policy Implications." Unpublished Ph.D. Dissertation. University of Wisconsin.

Taddesse Woldie (2001). "Causes of Students' Dropout at Primary level in SNNPR" Unpublished MA Thesis, AAU.

Tanguiane, S.(1990). International Yearbook of Education Literacy and Illiteracy in the work situation trends and prospects. Vol.42, Paries: UNESCO.

Tilaye Kassahun (1999) "The Problems of Secondary School Dropouts in East Gojjam" Ethiopia Journal of Education, Vol. XIX, No. 1.

UNESCO (1980).Wastage in Primary and General Secondary Education: A Statistical Study of Trends and Patterns in Repetition and Dropouts. Paris: UNESCO.

_____ (1998). Wasted Opportunities: When Schools Fail (Repetition and Dropouts in Primary Schools). Paris: UNESCO.

UNESCO-UNIVOC (2004). Bulletin, Special Issue for the UNESCO International Experts Meeting "Learning for work, Citizenship and Sustainability." Bonn, Germany, ECBP.

_____(2006). Research for TVET Policy Development. Bonn, Germany, ECBP.

Valencia R. (1991). Chicano School Failure and Success: Research and Policy Agendas for the 1990's, 1991's. London: The Falmer Press.

Wanna Leka and Tsion Dessie (1994). "Educational Wastage: The Case of Females in Selected Primary and Secondary Schools of Ethiopia." CERTWID/IDR. Unpublished Research Report, AAU.

Wanna Leka.(1992). "Assessing Vocational Education Outcomes: With Special Reference to Ethiopia." The Ethiopian Journal of Education. Vol. XIII, No. 2.

_____ (1998). The Current Status of Vocational/Technical Education in Ethiopia: Problems and Prospects. In Amare et al (eds), Quality Education in Ethiopia: Vision for the 21st Century. IER, Addis Ababa University.

Wehlage G, Rutter R, Smith G A, Lesko N, Fernandez R. (1989). Reducing the Risk: Schools as Communities of Support. Flamer Press. London.

World Bank (1980). Education Sector Policy Paper. Washington D.C: World Bank.

_____ (1987). The Current Situation of Women in Ethiopia. Unpublished report paper to the World Bank. university of Stockholm.

_____ (1990). Vocational Education and Training in Developing Countries: Policies for Flexibility, Efficiency and Quality: Executive Summery. Washington D.C, the World Bank

_____ (1998). Education in Sub-Saharan Africa: Policies for Adjustment, Revitalization, and Expansion. Washington, DC: World Bank.

_____ (2002). World Bank Study on Vocational Skills Development in Sub-Saharan Africa-a Working Group Review. Edinburgh: World Bank.

_____ (2006). Relevancy of Support Environment for TVET Assistance in Africa. Washington, DC: World Bank.

_____ (2007). Skill Development in India the Vocational Education and Training System. South Asia Region, the World Bank.

Yusuf Omer-Abdi (1998). Gender Sensitive Counseling: A hand book for school counselors. AAU Press.

Appendix A

Addis Ababa University

College of Education

School of Graduate Studies

Department of psychology

Questionnaire Prepared for Dropout Students

Part One

Direction: 1. Please put (✓) mark in the space provided for your answer

2. No need of writing your name

Name of TVET College----------

Sub City_____

1. Sex: ☐ A) Male
   ☐ B) Female
2. Age: ☐ A) 16 years and below
   ☐ B) 17-19 years
   ☐ C) 20-22 years
   ☐ D) 23 years and above
3. Marital status:
   ☐ A) Married
   ☐ B) Unmarried
   ☐ C) Divorced
4. At what level you dropped out?
   ☐ A) 10+1
   ☐ B) 10+2
   ☐ C) 10+3
5. How many individuals your parents support?
   ☐ A) 1-3 people
   ☐ B) 4-6 people
   ☐ C) 7 people and above

6. What religion does your parent practice?

- ☐ A) Christian
- ☐ B) Muslim
- ☐ C) Others_____

7. Parents' educational level:

Father (Guardian)

- ☐ A) Illiterate
- ☐ B) Traditional education
- ☐ C) Primary
- ☐ D) Secondary
- ☐ E) College/University

Mother (Guardian)

- ☐ A) Illiterate
- ☐ B) Traditional education
- ☐ C) Primary
- ☐ D) Secondary
- ☐ C) College/University

8. With whom do you live now?

- ☐ A) With both parents
- ☐ B) With one of my parents
- ☐ C) With my spouse
- ☐ D) With relatives
- ☐ E) Living alone

9. Parents' livelihood:

- ☐ A) Farming
- ☐ B) Private business
- ☐ C) Government employee
- ☐ D) Others (Specify) _____

10. Are your parents alive?

- ☐ A) Both of them are alive
- ☐ B) Both of them are not alive
- ☐ C) Only one of them is alive

Part Two

Direction: some of the possible causes for students to dropout of TVET colleges are listed below. Indicate your possible choice for each item of the dropout problem (by putting a (✓) mark) using the point scale which signifies:

5-Very high
4-High
3-Moderate
2-low
1-Very low

	External (Out of College) Factors						
No.	***Items***	***Response value***					
		1	2	3	4	5	
1	Poverty						
2	Family breakdown						
3	Lack of (low) employment opportunity						
4	Parental inability to afford educational expense						
5	Parents' level of education						
6	Students involvement in income generating tasks						
7	Excessive involvement in family work						
8	Peer group influence						
9	Marriage						
10	Early age pregnancy						
	College Related (Institutional) Factors						
1.	Traveling long distance from Home to college						
2.	Curriculum irrelevance						
3.	Shortage of qualified teachers						
4.	Low qualification of teachers						
5.	Lack of guidance and counseling service						
6.	Inadequate supply of instructional materials and other facilities						
7.	Lack of teachers' encouragement for students						
8.	Absenteeism						
9.	Selection and placement problem						

Appendix B

Addis Ababa University

College of Education

School of Graduate Studies

Department of psychology

Questionnaire Prepared for TVET College Teachers

Purpose: The main purpose of this questionnaire is to collect first-hand information on the major factors that cause students to quit TVET education and to suggest measures that can help in alleviating the problem. Your cooperation in providing relevant information will be of great help for the success of this study. Please give your honest and complete response to all questions.

Part One

Direction: 1. Please put (✓) mark in the space provided for your answer

2. No need of writing your name

Name of TVET College----------

Sub City_____

1. Sex: ☐ A) Male
   ☐ B) Female
2. Age: ☐ A) 20-30 years
   ☐ B) 31-40years
   ☐ C) 41-50 years
   ☐ D) 51 years and above

3. Level of Education:

- ☐ A) Diploma
- ☐ B) BA/ B.SC
- ☐ C) MA/ M.SC
- ☐ D) PHD

4. Years of teaching experience in TVET College.

- ☐ A) 5 years and below
- ☐ B) 6-10 years
- ☐ C) 11 years and above

5. Did you get relevant training in TVET Colleges?

- ☐ Yes
- ☐ No

Part Two

Direction: some of the possible causes for students to dropout of TVET colleges are listed below. Indicate your possible choice for each item of the dropout problem (by putting a (✓) mark) using the point scale which signifies:

5-Very high 2-low

4-High 1-Very low

3-Moderate

	External (Out of College) Factors						
No.	***Items***	***Response value***					
		1	2	3	4	5	
1	Poverty						
2	Family breakdown						
3	Lack of (low) employment opportunity						
4	Parental inability to afford educational expense						
5	Parents' level of education						
6	Students involvement in income generating tasks						
7	Excessive involvement in family work						
8	Peer group influence						
9	Marriage						
10	Early age pregnancy						
	College Related (Institutional) Factors						
1.	Traveling long distance from Home to college						
2.	Curriculum irrelevance						
3.	Shortage of qualified teachers						
4.	Low qualification of teachers						
5.	Lack of guidance and counseling service						
6.	Inadequate supply of instructional materials and other facilities						
7.	Lack of teachers' encouragement for students						
8.	Absenteeism						
9.	Selection and placement problem						

Appendix C

Addis Ababa University

College of Education

School of Graduate Studies

Department of psychology

Questionnaire Prepared for TVET College Deans and Academic Deans

Purpose: The main purpose of this questionnaire is to collect first-hand information on the major factors that cause students to quit TVET education, and then to propose possible measures to be taken to reduce the problem. Hence, since your sincere response to the question has a great contribution for the success of this study, your cooperation in answering the questions will be highly appreciated.

Direction: give appropriate answer to the following questions by putting () mark in the box or by writing in the space provided.

1. Had you trained in TVET management?
   A) Trained
   B) Not trained
2. How many years you have served a TVET academic dean in general?
   A) 3 years and below
   B) 4-6 years
   C) 7 years and above
3. How many years you have served as a teacher serves in TVET?
   A) 3 years and below
   B) 4-6 years
   C) 7 years and above

4. As a professional, what measures do you suggest to be taken by the government, parents and dropout to reduce dropout in TVET institution?

A) Measures to be taken by the government

_____
_____
_____
_____
_____
_____

B) Measures to be taken by the Parents

_____
_____
_____
_____
_____
_____

APPENDIX – D

Summary: Dropout rate in Sample TVET Colleges by Sex (1999 E.C - 2000 E.C.)

No	Sampled TVET	Academic Year									
		1999E.C.					2000E.C				
		Enrollment		Dropout		%	Enrollment		Dropout		%
		M	F	M	F		M	F	M	F	
1	Addis Ababa	1468	583	46	61	5.2	1721	622	64	72	5.8
2	Entoto	387	493	37	16	6.0	2233	1990	63	126	4.4
3	General Wingate	375	636	25	28	5.2	503	889	99	139	17.1

Summary: Number of Academic Staffs in the Study Area by Sex and level of education.

No	Level of Education	Total number of teacher			Percent of Teacher		
		M	F	T	M	F	T
1	M.A. / M.Sc	37	6	43	10	6.3	9.2
2	B.A. / B.Sc	295	72	367	79.5	75	78.6
3	Below Degree	39	18	57	10.5	18.7	12.2
	Total	371	96	467	100	100	100

Source: TVET Colleges personnel departments and registrars of the sample area.

APPENDIX-E

Spearman's Rank Order Correlation

Out-of-College Factors

SPEARSMAN'S RANK ORDER ANALYSIS OF OUT OF COLLEGE FACTORS BETWEEN STUDENTS AND TEACHERS									
Items	Mean	X_1	X_1^2	Mean	X_2	X_2^2	X_1X_2	X_1-X_2	D^2
1	3.291	2	4	3.541	2	4	4	0	0
2	2.709	7	49	3.523	3	9	21	4	16
3	3.34	1	1	3.73	1	1	1	0	0
4	3.155	4	16	3.108	5	25	20	-1	1
5	2.951	5	25	3.018	6	36	30	-1	1
6	3.243	3	9	3.234	4	16	12	-1	1
7	2.942	6	36	2.82	7	49	42	-1	1
8	2.65	8	64	3.018	6	36	48	2	4
9	2.029	10	100	1.721	9	81	90	1	1
10	2.243	9	81	1.874	8	64	72	1	1
	Sum X_1	55	385	Sum X_2	51	321	340	Sum D^2	26

Where

X_1=Students rank Out of College factors

X_2=Teacher rank Out of College factors

$$r_{xy} = \frac{N\sum XY - \sum X \sum Y}{\sqrt{((N\sum X^2) - (\sum X)^2 (N\sum Y^2) - (\sum Y)^2)}}$$

$$= \frac{10\,(340) - (55 \times 51)}{\sqrt{(10 \times 385) - (55)^2)\,(10 \times 321 - 51^2)}}$$

$$= \frac{3400 - 2805}{\sqrt{(3850 - 3025)\,(3210 - 2610)}}$$

$$= \frac{595}{\sqrt{825 \times 609}}$$

= 0.83942

College Related Factors

SPEARSMAN'S RANK ORDER ANALYSIS OF COLLEGE RELATED FACTORS BETWEEN STUDENTS AND TEACHERS									
Items	Mean	X_1	X_1^2	Mean	X_2	X_2^2	X_1X_2	X_1-X_2	D^2
1	3.612	3	9	3.73	2	4	6	1	1
2	3.544	4	16	3.441	4	16	16	0	0
3	2.262	9	81	2.45	8	64	72	1	1
4	2.505	8	64	2.261	9	81	72	-1	1
5	3.728	2	4	3.405	5	25	10	-3	9
6	2.825	7	49	2.865	7	49	49	0	0
7	3.379	6	36	3.045	6	36	36	0	0
8	3.388	5	25	3.586	3	9	15	2	4
9	3.845	1	1	3.937	1	1	1	0	0
	Sum X_1	45	285	Sum X_2	45	285	277	Sum D^2	16

Where

X_1=Students rank for College related factors

X_2=Teacher rank for College related factors

$$r = 1 - \frac{6\ D^2}{N(N^2-1)}$$

$$= 1 - \frac{6(16)}{9(9^2-1)}$$

$$= 1 - \frac{96}{720}$$

$$= 1 - 0.13333$$

$$= 0.866$$

APPENDIX F

Chi-square Analysis of the Respondents on the Major College Related Factors on Students Dropouts

Item 1	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	χ^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	10	8.663551	17	13.95794	16	17.3271	20	25.50935	40	37.54206	103	4.475887	9.49
Teachers	8	9.336449	12	15.04206	20	18.6729	33	27.49065	38	40.45794	111		
Column Total	18		29		36		53		78		214		

Item 2	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	χ^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	13	12.03271	15	15.40187	18	20.69626	17	19.73364	40	35.13551	103	2.875843	9.49
Teachers	12	12.96729	17	16.59813	25	22.30374	24	21.26636	33	37.86449	111		
Column Total	25		32		43		41		73		214		

Item 3	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	χ^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	37	33.21028	28	28.3972	19	19.25234	12	15.40187	7	6.738318	103	2.319037	9.49
Teachers	32	35.78972	31	30.6028	21	20.74766	20	16.59813	7	7.261682	111		
Column Total	69		59		40		32		14		214		

Item 4	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	χ^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	32	29.84112	22	29.35981	28	26.47196	7	9.626168	14	7.700935	103	15.34278	9.49
Teachers	30	32.15888	39	31.64019	27	28.52804	13	10.37383	2	8.299065	111		
Column Total	62		61		55		20		16		214		

Item 5	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	χ^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	9	11.07009	12	11.5514	22	24.06542	15	21.17757	45	35.13551	103	9.935225	9.49
Teachers	14	11.92991	12	12.4486	28	25.93458	29	22.82243	28	37.86449	111		
Column Total	23		24		50		44		73		214		

Item 6	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	χ^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	22	21.17757	25	22.14019	25	27.43458	11	15.88318	20	16.36449	103	5.641784	9.49
Teachers	22	22.82243	21	23.85981	32	29.56542	22	17.11682	14	17.63551	111		
Column Total	44		46		57		33		34		214		

Item 7	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	χ^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	14	15.40187	15	18.77103	23	22.6215	20	21.65888	31	24.54673	103	5.234554	9.49
Teachers	18	16.59813	24	20.22897	24	24.3785	25	23.34112	20	26.45327	111		
Column Total	32		39		47		45		51		214		

Item 8	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	χ^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	20	13.47664	11	11.5514	17	18.77103	19	29.35981	36	29.84112	103	15.95882	9.49
Teachers	8	14.52336	13	12.4486	22	20.22897	42	31.64019	26	32.15888	111		
Column Total	28		24		39		61		62		214		

Item 9	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	χ^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	16	11.5514	7	5.294393	9	15.88318	16	20.21495	55	50.05607	103	12.74889	9.49
Teachers	8	12.4486	4	5.705607	24	17.11682	26	21.78505	49	53.94393	111		
Column Total	24		11		33		42		104		214		

APPENDIX F

Chi-square Analysis of the Respondents on the Major out of College Factors on Students Dropouts

Item 1	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	X^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	25	15.88318	6	8.182243	21	27.43458	16	19.73364	35	31.76636	103	16.117025	9.49
Teachers	8	17.11682	11	8.817757	36	29.56542	25	21.26636	31	34.23364	111		
Column Total	33		17		57		41		66		214		

Item 2	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	X^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	39	20.69626	8	12.03271	17	23.58411	22	26.47196	17	20.21495	103	39.800574	9.49
Teachers	4	22.30374	17	12.96729	32	25.41589	33	28.52804	25	21.78505	111		
Column Total	43		25		49		55		42		214		

Item 3	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	X^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	22	13.47664	8	9.626168	20	20.69626	19	25.99065	34	33.21028	103	14.628771	9.49
Teachers	6	14.52336	12	10.37383	23	22.30374	35	28.00935	35	35.78972	111		
Column Total	28		20		43		54		69		214		

Item 4	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	X^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	21	13.95794	13	19.25234	21	26.47196	25	25.99065	23	17.3271	103	16.598519	9.49
Teachers	8	15.04206	27	20.74766	34	28.52804	29	28.00935	13	18.6729	111		
Column Total	29		40		55		54		36		214		

Item 5	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	X^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	24	17.3271	15	19.25234	21	25.02804	28	30.32243	15	11.07009	103	11.047663	9.49
Teachers	12	18.6729	25	20.74766	31	26.97196	35	32.67757	8	11.92991	111		
Column Total	36		40		52		63		23		214		

Item 6	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	X^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	16	13.47664	16	14.43925	23	26.47196	23	31.28505	25	17.3271	103	12.894735	9.49
Teachers	12	14.52336	14	15.56075	32	28.52804	42	33.71495	11	18.6729	111		
Column Total	28		30		55		65		36		214		

Item 7	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	X^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	25	18.77103	16	21.65888	21	29.35981	22	19.73364	19	13.47664	103	16.290794	9.49
Teachers	14	20.22897	29	23.34112	40	31.64019	19	21.26636	9	14.52336	111		
Column Total	39		45		61		41		28		214		

Item 8	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	X^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	28	20.69626	20	19.73364	29	29.84112	12	20.69626	14	12.03271	103	12.6867	9.49
Teachers	15	22.30374	21	21.26636	33	32.15888	31	22.30374	11	12.96729	111		
Column Total	43		41		62		43		25		214		

Item 9	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	X^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	46	48.61215	28	31.28505	13	13.47664	12	7.219626	4	2.406542	103	9.1046495	9.49
Teachers	55	52.38785	37	33.71495	15	14.52336	3	7.780374	1	2.593458	111		
Column Total	101		65		28		15		5		214		

Item 10	(Degree of Freedom (df)=4, at α= 0.05 Level of significance)												
Group	1		2		3		4		5		Total	X^2	Table Vlaue
	O	E	O	E	O	E	O	E	O	E			
Students	45	47.16822	19	23.58411	18	17.3271	11	9.626168	10	5.294393	103	10.401556	9.49
Teachers	53	50.83178	30	25.41589	18	18.6729	9	10.37383	1	5.705607	111		
Column Total	98		49		36		20		11		214		