ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

FACTORS AFFECTING QUALITY OF MIDDLE LEVEL TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING PROGRAM

THE CASE OF HOSSANA & WOLKITE POLYTECHNIC COLLEGES

A THESIS SUBMITTED

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF MASTER OF ARTS IN EDUCATIONAL RESEARCH AND EVALUATION

BY

SOLOMON SULITO WOLISSO

SEPTEMBER 2012

ADDIS ABABA

DECLARATION

I, as a researcher, would like to declare that this THESIS is my original work and has not been presented at any university and all sources of reference materials employed for this study have been acknowledged.

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THIS THESIS HAS BEEN SUBMITTED FOR EXAMINATION WITH MY APPROVAL AS A UNIVERSITY ADVISOR

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DATE OF APPROVAL Sept/2012

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List of Abbreviations & Acronyms

CoC	-	Center of Competence
CTPO	-	Cooperative Training Providing Organizations
EOS	-	Ethiopian Occupational Standard
ETP	-	Education and Training Policy
ETQG	-	Ethiopian TVET Qualification Framework
FDRE	-	Federal Democratic Republic Ethiopia
FNG	-	Federal Negarit Gazeta
HPTC	-	Hossana Polytechnic College
IDP	-	Institution Development Plan
ILO	-	International Labor Organization
ISO	-	International Standards Organization
KAIZEN	-	A Japan term & is change for better or freely translated quest for continuous improvement in all aspects of daily life.
LMIS	-	Labor Market Information System
MoE	-	Ministry of Education
MSSE	-	Micro & Small Scale Enterprises
NTVETS	-	National Technical & Vocational Education & Training Strategy
OMF	-	Omo Micro Finance
QMS	-	Quality Management System
RPL	-	Recognition of Prior Learning
SDC	-	Skill Development Center
SNNPRS	-	South Nations Nationalities & Peoples Regional State
TMIS	-	Training Management Information System
TTLM	-	Teaching Training & Learning Materials
TVET	-	Technical & Vocational Education & Training
WPTC	-	Wolkite polytechnic College

Operational Definitions

Competence - A cluster of related abilities, commitments, knowledge, and skills that enable a trainee to act effectively in his training, further job or situation. Competence indicates sufficiency of knowledge and skills that enable someone to act in a wide variety of situations.

Effectiveness - The degrees to which objectives of the TVET colleges are achieved or the extent to which targeted problems are solved. In contrast to efficiency, effectiveness is determined without reference to costs and, whereas efficiency means "doing the right things, during training programs."

Practicality - concerned with matters of fact or the actual work of a profession or activity. It is also concerned with actual facts, real life and experience, not theory rather the practical applications of the training program. It can also be defined as a capability of being done, carried out or put into effect.

Quality - A measure of excellence or a state of being free from defects, deficiencies, and significant variations, brought about by the strict and consistent adherence to measurable and verifiable standards of TVET program to achieve uniformity of output that satisfies specific customer or user requirements. "the totality of features and characteristics of a product or service that bears its ability to satisfy stated or implied needs." *ISO : 8402*

Resource - is an innovative supplier of essential support such as assets, human, financial provision & critical services for the effective implementation of TVET programs. And activity on which time is spent.

Stakeholder(s) - a person or group with a direct interest, involvement, or investment in the training program, e.g. the employers and customers or owners of a business concern based on trust or negotiations.

Feasibility - a preliminary study undertaken to assess whether training programs are likely to be practical and successful and to estimate its cost. It is also the degree to which the training programs can be achieved or put into effect. Or the fields of study that can be achieved.

Intervention - the act of intervening, especially a deliberate entry into the training program or dispute in order to influence the programs or prevent undesirable consequences of the training programs.

A paradigm - a set of accepted beliefs and is controversial discussion across many scientific disciplines. In the philosophy of science, a generally accepted model of how ideas relate to one another, forming a conceptual framework within which scientific research is carried out

Strategy - a systematic frame-work to create a competent, motivated, adaptable & innovative work force in Ethiopia contributing to poverty reduction, social & economic development.

Abstract

The expansion of TVET program is relatively a recent phenomenon that has been assumed to be the way of reducing poverty from this country. In order to attain this goal, nationwide attempts have been done at all levels of the training programs. This in turn needs to be supported by qualified human force and adequate resources. Therefore, this study focuses on assessing "Factors affecting quality of middle level TVET program" with reference to Hossana & Wolkite polytechnic colleges.

To this end, the study employed a descriptive survey method. The primary and secondary data were collected from different sources using questionnaire, interview, observations and focus group discussions while availability, purposive, simple random, and snowball sampling techniques were employed according to their convenience. 330 trainees, 22 instructors, 12 college officers, 6 regional TVET bureau officials, 20 recently graduated youngsters from Level 3 and level 4, and 10 CTPOs supervisors were involved as a sample population. Data were tallied & tabulated using Likert scale type and it was analyzed and presented using descriptive statements. Moreover, percentages were mainly used to explain and analyze responses.

As it was found out, adequacy & availability level of machines and equipments, safety rules and workshop documents, training modules and text books are said to be medium and less than that while Adequacy level of human & financial resources are found to be low and very low accordingly. Quality & Practicality level of academic issues are found to be medium while effectiveness of cooperative training, labor market, and gap assessment systems are found to be medium. Feasibility of the training program is quite medium while sector based labor market assessment system is found to be relevant. Level of periodic activities and interventions are found to be medium while the level of concern and participations of the front-liners is found to be slightly high. Even though students' interest was rated at high level probably because of the eagerness or curiosity of getting (generating) income for themselves, their drop-out & disciplinary problems are found to be high.

It was also found out that trainees join TVET colleges/institutions without sufficient information regarding the nature and employment opportunities attached to different fields of training in addition to narrow room given to their interest, talents and abilities during placement. Even though the instructors tend to disclose emphatic interest restoration because of the salary promotion announced by the government, degree of their turn-over is found to be high & many of them are still giving training to middle level (L-3 & L-4) out of their qualifications. On the other hand, competence of the trainees' as well as the instructors is found to be satisfactory & above that accordingly. Lack of willingness in the part of the CTPOs, Insufficient resources that they had, and weak mechanisms to follow-up the trainee during the training programs are found to be the major problems of cooperative training programs while participation of stakeholders & partners, is found to be below satisfactory. Finally, on the basis of the findings, clear conclusions & recommendations were made as far as quality of middle level TVET program is concerned.

CHAPTER ONE

1. Introduction

This chapter contains introductory parts of the study namely, the background, statement of the problem, objectives, significance, delimitation (scope), limitations and contextual descriptions of the two Colleges that are selected as research settings.

1.1 Background

In most cases a country's economic development policy usually includes, human resource development component, most of which is realized through education and training. Among the different categories of education, it is the technical and vocational education that is highly believed to determine the competitive capacity and strength of a country's productive work force. In light of globalization, nowadays, most countries have stated, in one way or another, the general purpose of TVET in the following way:

> *" It is to provide alongside general education, knowledge and skills in technical and vocational fields, in order to meet national manpower requirement in agriculture, construction, industry, business and other technical services "* (UNESCO, 1996:16).

A country, in order to attain a promising development of its economy, has to improve the quality of its human resource which could be realized through education. As a matter of deed, advanced economic change, however cannot take place by merely generating graduates of academic education. To this end, many countries in the world introduced TVET as part of their educational programs to develop skilled human resources.

African countries, particularly, do not afford the investments required by TVET colleges and institutions because of low awareness and economic short comings. No matter how the required resources are huge, expensive and to what extent the economic status of a country varies, studies carried out by World Bank and respective researchers have shown that investment in TVET is worthwhile to address the desired economic development (Kerry, 1996). For example, in spite of the long history of education and ancient civilization of Ethiopia, formal TVET is a recent phenomenon (Teklehaimanot, 2002:6).

Therefore, the 1st technical and vocational school was established nearly half a century later after the introduction of modern education in 1908. More formally, Ethiopia has introduced TVET program in to the system of education with the establishment of Addis Ababa technical school in 1942 (Wanna, 1995), Since then, it was followed by few technical and agricultural colleges, and some vocational courses in the form of subjects like handcraft, drawing, home economics, agriculture and others were given in the school integrated with general Unsuitable recruitment procedures of trainers.

In reality TVET program in Ethiopia was inefficient for a long time due to:

- Poor background of trainees
- Lack of insufficient support to the trainees' education.
- Irrelevant curriculum design
- Unfair accreditation and the like.

In 1994 a new education and training policy was introduced and TVET got due attention. As a result of this the national TVET strategy (MoE, 2006) clearly prescribed the need for expansion of primary and vocational education so as to be more realistic to the real situation of the country, the demand of the economy and to attain some degree of equity and sustainability. The new Education and Training Policy (ETP) states that:

> *"Parallel to the general education, diversified technical and vocational training will be provided for those who leave school from any level of education»* (ETP, 1994).

Based on this policy, the FDRE has made an immense effort to design and implement a new school based TVET programs in various levels of the educational system. In response to the education and training policy, the expansion of TVET colleges/institutions is getting especial attention by the federal government, regional states and the whole society as well.

As the TVET extension is from secondary to tertiary level, nowadays, there are number of government and non government TVET institutions and polytechnic colleges throughout the country enrolling numerous trainees in all programs However, global and national experiences show that the mere expansion of TVET institutions does not solve the problem of unemployment and/or job opportunity.

In line with the expansion of TVET institutions and colleges, it was must to reform overall system from time to time following the dynamic changes of the country's real situations in addition to equipping them with basic facilities, personnel and finance to advance the required quality. This is supported by scholars description as :

> *" Technical and vocational education offers a specific training in a particular vocation for ensuring the students transition from school to the world of work or practical performance. It is assumed to be the main means through which the youth are prepared for paid or unpaid (self) employment, or for additional careers requiring other than advanced degrees "* (Smith, 1990).

On the same line, (Atchoarena and Enquiu, 2002) described that no country give up training of its young people because their technical skills are needed to increase productivity both in formal and in informal sectors of its economy. In light of the previous conceptual insight and statements of proponents, Ethiopia has embarked on a process of reforming the national TVET system based on timely progresses and conditions of the country.

In this context, the new paradigm is the orientation at the demand of the economy and the labor market outlines the principles of the targeted TVET system. In the primary objective of the new education and training policy, the TVET program is to provide various skill training for present and future labor force in order to address the requirements of the labor market. This issue is more specifically indicated in (MoE, 2002a). As described in these materials, the objectives behind this program are:

A) Creating both manual and middle level technical labor force in several occupations including industry, construction, business, social services and other relevancies.
B) Making the trainees capable of using resources wisely as well as economically for the benefit of individuals and the society at large.
C) Creating self confidence upon the trainees so as to take up self responsibility of creating or establishing their own business related to their skill trades.
D) Developing critical thinking and problem solving capacity upon the trainees by providing adequate knowledge, attitude and skills.
E) Enabling the trainees to work individually or incorporate with groups of people such as the so called 'micro and small scale enterprises' in the areas of their skill trades.

1.2 Statement of the Problem

Over the last 10 years Ethiopia has experienced a rapidly increasing demand for overall education in General and Technical and Vocational education in particular. As it was indicated by Tucker 1992 in Mokonnen (2004:20), the quality of economic performance of a country is a function of the quality of its human resource. Technical and Vocational Education was also assumed to be the main means through which the youth are prepared for, paid or unpaid employment, additional careers and advanced degrees, (Bent & Kronenberg, 1966; Mesay, 2004; Smith, 1990).

In response to this reality, the Education and Training Policy was introduced in 1994 and as a result, twenty-five Skill Development Centers (SDC) were opened in the country in 1997 (Yekunoamlak, 2002:226). Even if that is so, those centers could not provide the desired middle level skilled man power to the country because they were established without thorough need assessment to train the youth. In consideration to the problems regarding TVET system and expansion, the government gave due attention and formulated a strategy that enables the implementation of an expanded, diversified and integrated TVET programs which helps the institutions/colleges to use new curricula and modalities of training.

Even though many middle level trainees graduated from these institutions & colleges, the quality (skill) of the graduates could not reasonably attract labor market (employers). The quality of trainings being provided by TVET institutions (Colleges) until the reformation, could not address the expectation of the public and the labor market as well. The question of quality has become a great issue for the TVET system. Because of different problems related to the world of work, most of the TVET trainees expect job from government organizations and any other employers. However, the government employers cannot provide job opportunity to all graduates for many justified realities considering the fact that providing technical & vocational training alone would not help trainees /graduates/ to obtain independent life, complementing TVET training skills with entrepreneurial course is mandatory.

The success of middle level TVET programs depend strongly on an effective management of the institutions/colleges, provision of the required resources and involvement of the partners and stakeholders in the planning implementation and evaluation process of the programs, but not on more expansion of the training institutions/colleges. Hence, due to the stated and other problems the TVET institutions in the country did not show fast progress as they are expected.

In order to bring development in national and regional level by addressing the issues of employment or job opportunity, it is mandatory to strengthen and enhance the status of middle level TVET program within the significant role of the institutions/colleges. Therefore, the researcher attempted to study *factors affecting quality of middle level TVET program* by deeply assessing overall training under the following terms of the quality.

Quality in-terms of :

- Availability & adequacy level of training materials, safety rules, workshop documents, machine maintenances & power supply.
- Availability & adequacy level of human and financial resources.
- Practicality level of academic issues like, Curriculum & TTLM design & development
- Effectiveness level of periodic activities, monitoring methods, evaluation strategies & feedbacks.
- Placement (streaming) of the prospective trainees.
- Trainees' & instructors' interest towards the trainings and their level of competences.
- State of in-service training chances for the instructors, their methods of approaches & commitment during trainings, employability (job opportunity) for the graduates.
- Planning middle level program & its feasibility, workshop facilities, cooperative training, need & labor market assessment.
- Level of concerns, participations of the stakeholders, state of other problems & the like.

As mentioned previously, assessing for *factors affecting quality of middle level TVET program* was the major focus of this study and rightly so, to examine the present status or role of TVET colleges/institutions with reference to *Hossana* and *wolkite* polytechnic colleges.

In the course of this research, to attain in to the intended purpose, attempts have been made as exhaustively as possible, to seek reliable answers for the following basic research questions.

1. *What are the main factors that contribute against the quality of middle level TVET program ?*
2. *What lack of, interests & competencies the instructors & the trainees have ?*
3. *What problems do the middle level training program have due to resource availability & adequacy ?*
4. *To what distance is suitable & addressable bridge constructed between the college, the labor market, the partners & the stakeholders to keep quality of middle level program ?*
5. *What kind of monitoring & evaluation strategies are being followed to measure effectiveness, outcomes and impacts of the quality of middle level training ?*
6. *What kind of interventions and pragmatic treatments are being carried out to eliminate or minimize potential inconveniences & short-comings of the quality of middle level training program ?*

1.3 Objectives of the study

- *The main objectives of this study are:*

- To identify the factors, aspects, opponents, circumstances, disadvantages that counter-felt quality of middle level TVET program under the research setting which enables the researcher to suggest solution sets & recommendations accordingly.
- To assess whether or not there are conducive atmosphere to implement and keep quality of the middle level training program according to the desired goal under TVET strategies & reformations.
- To investigate what sort of challenges and problems are in the training sessions, workshops, project work sites that need solution-set from the most responsible bodies & parties to facilitate conditions primarily based on the study findings
- To suggest possible options on what planning – implementing – evaluating and improving activities should incorporate at pre-training, on training and post training steps of the middle level program.

1.4 Significances of the study

- *The outcome of this study can have the following multi-dimensional significances.*

- The study may help concerned audience to look at up-to date & right picture of the current status of TVET colleges/institutions with reference to Hossana & Wolkite polytechnic.
- It may indicate what roles are expected from trainees (students), Instructors (teachers), college deans, departments, core & supportive processes, stake holders, regional TVET bureau officials and the whole community as to facilitate relevant pre-conditions, while- conditions and post-conditions in order to keep quality of middle level TVET program in particular and the whole level at large.
- It may magnify the economic and career advantages of middle level TVET program at local, regional and national level.
- It may energize other researchers to find out some other gaps in the same area which are not addressed in this study.
- It may provide some alternatives of feasible recommendations in accordance to improving middle level TVET program with regard to major problems which are addressed throughout the study.

1.5 Delimitation (scope) of the study

Middle level TVET program is recently reformed and launched to the existing and newly established governmental and non governmental institutions and colleges, However the scope of this study is limited to:

a) Hossana & Wolkite polytechnic colleges (in terms of setting)

b) Only middle level (L,3 & L,4) (in terms of level).

c) Only 2003 & 2004 E.C entry of Level 3&4 who are still on the course of training (in-terms of entry).

- The study is delimited to middle level (3&4) because the trainees in these boundaries or levels stay more time (years) in the colleges and may have better exposure about the training programs.
- 10 departments (specific fields) are bounded (limited) to this study, and the same thing is true for the participant Instructors (teachers) & trainees (students).

1.6 Challenges

Major challenges the researcher faced were :

- Lack of sufficient literature in the area of TVET. As a result, more time has been spent than the time frame initially set.
- Lack of good cooperation at the CTPOs part by which the researcher has faced bothersome in addressing them more than twice & thrice.
- It was a bit challenging to dispatch the questionnaire & get response from employed & unemployed graduates.
- Availability of the concerned participants especially of the officials was one of the problems.
- Understanding level of the trainees to respond the questionnaire by reading appropriately was also another misery

1.7 Contextual Descriptions of the Research Settings

A. Hossana is situated 230 kms far away from Addis Ababa to the southern part of the country and is the capital city of Haddiya Zone in South Nations, Nationalities & Peoples regional state (SNNPRS).

Hossana Polytechnic College, as well, is established 1km aside to the north-west of Hossana town, approximately 2kms far away from Bezabih Petros Square (that is the center of Hossana town). Fortunately the College has probably 13 hectors of its wide campus, and due to this there is no problem of ground space to construct, accommodate and fix whatever is wanted.

As long as 13 work years old, Hossana polytechnic college is relatively well organized and equipped with sophisticated training materials and machines, old and new blocks, and other infrastructures as to run the whole training program. In near past, the college undertakes (starts) Quality Management system (QMS) under the requirements of International organization for standardization (ISO) project, and that enables the college to make up its overall status, physical beauty (attraction), internal organizations, and the like.

Beside these :

a) The extent of annual enrollment (population rate) in HPTC is very high in comparison to other collage and institutions in SNNPRS.
b) HPTC provides diversified programs (particularly at middle level) through regular, extension, and summer sessions.
c) Short term programs are also being carried out periodically based on the demands of partners including governmental and nongovernmental sectors & organizations of SNNPR.
d) HPTC, in addition to cluster in charge, is one of the centers of competence (CoC) in SNNPRS.
e) Of these reasons, HPTC is strongly competitive college among other collages/institutions in SNNPRS.
f) Number of graduates with in every year is very high and distributed in Hossana and other Neighboring towns with or without job opportunity.

As the researcher is the member of the college, he realizes that there might have many critical factors affecting quality of middle level program (L 3&4) in particular, and the whole program in general in contrary to the strong attempts, endeavors & struggles done by the college leadership, respective community members of the college, regional TVET bureau and other concerned bodies.

B. Wolkite is situated 150 km far from Addis Ababa to the south-west part of the country and is the capital city of Gurage Zone in South Nations, Nationalities & Peoples regional state (SNNPRS).

Wolkite Polytechnic College, as well, is established aside to the north- east of Wolkite town, approximately 2.5 kms far away from the so called Gebre'el Square (that is the center of Wolkite town). Fortunately, the College has 2 wide campuses (one for construction & the other for the rest). Both campuses approximately might constitute for 20 hectares and due to this, there is no problem of ground space to construct, accommodate and fix whatever is wanted. As long as 12 work years old, Wolkite polytechnic college is relatively well organized and equipped with sophisticated training materials and machines, new blocks, and other infrastructures as to run the whole training programs.

So far, the college was well organized by the so called KAIZEN program and that in-fact highly beautified the respective workshops. I have been told, In near future, the college also planned to start (carry out) Quality Management system (QMS) under the requirements of International organization for standardization (ISO), and that will enables the college to make up its overall status, physical beauty (attraction), internal organizations, and the like.

Beside these :

a) The extent of annual enrollment (population rate) in WPTC is relatively high in comparison to other collage and institutions in SNNPRS.

b) WPTC provides diversified programs (particularly at middle level) through regular, extension, summer & informal sessions.

c) Short term programs are also being carried out periodically based on the demands of partners including governmental and nongovernmental sectors & organizations of SNNPR.

d) WPTC, in addition to cluster in charge, is one of the centers of competence (CoC) in SNNPRS

e) Of these reasons, WPTC is strongly competitive college among other collages/institutions in SNNPRS.

f) Number of graduates with in every year is very high and distributed in Wolkite and other Neighboring towns with or without job opportunity.

g) The researcher assumed that many critical factors, problems & drawbacks affecting middle level TVET program (L 3&4) in particular, and the whole program in general, existed in contrary to the strong attempts, endeavors & struggles done by the college leadership, respective community members of the college, regional TVET bureau and other concerned bodies.

Due to the above multi-dimensional reasons, that may in turn enrich the study, and keep up its validity & reliability, the researcher needed (selected) Hossana & Wolkite polytechnic colleges as a research setting (site), one way or another, and more or less the same operations are assumed to be true in the other colleges and institutions throughout SNNPR.

By searching out and magnifying affecting factors, problems & drawbacks of the middle level TVET program, and suggest possible recommendations, the researcher believes that due attentions, remedies, solution sets and treatments will be undertaken by the respective College communities, the deans, the college boards, the regional bureau authorities and other concerned bodies as to Technical and vocational Training is the back bone for overall development of our local, our region, and our country as well.

1.8 Organization of the study

This research is organized in to 5 chapters. The 1St one deals with introduction accompanied by subsequent component parts like, background of the study, statement of the problem, objectives, significances, contextual description, delimitations, limitations. The 2nd chapter discusses the theoretical and empirical review of related literature. The 3rd one treats research design, data collecting tools, data collecting procedures and it approach of analysis.

The 4th chapter comes across with presentation, interpretation, analysis of the data and organization of the data. The last chapter takes charge of summary of the findings, conclusions and possible recommendations. In addition, references, data collecting instruments, other related papers, relevant documents and information are attached to the appendices.

Chapter Two

2 Review of related literature

- **Introductions**

The review of literature summarizes and/or paraphrases different concepts about TVET program, studies of the famous proponents, insights of scholars, previously conducted researches which are related to the technical and vocational education in general and middle level TVET programs in particular. The literature, has also, been contributed by previously done essays, papers and internet sources.

2.1 Conceptual framework of TVET

2.1.1 Different concepts about TVET program

In relation to the existence of vocational education, Abramson (1979) drawn attention on the historical development of TVET goes back to the primitive society in which children learnt from their parental skills that are required for survival such as crashing wood with each other to generate fire. Even if it is difficult to cite /quote, the exact historical time when formal skill training was started, many literatures gave approval that the industrial revolution could be the turning point.

In this regard, Vanables (1959) deduced that technical and vocational education was the result of industrial revolution which expanded in to European Countries since 18 century. The expansion and development of TVET, however, was not favored by many proponents and public for the following reasons and arguments:

- TVET cannot prepare students for specific occupation.
- There are no clear empirical and numerical evidence that the economic return of TVET outweigh than the general education.

In summing up, despite the low public image and/or ignorance from some scholars, the expansion and integration of TVET to the general education has a paramount importance for the development of the modern economic sector.

After a long way of historical transformation, the world today is developing every technological activity in a global form of production and that factors the training of professionals and technicians to be viewed from the strategic stand point of the global development, rather than the narrow interest of each country in order to handle increasing global issues (Weizhi, 1991)

Nowadays, nearly for all countries, TVET is not an option rather it is an imperative. It plays a determinant role in promoting socio-economic growth of the countries. The evolving, multifaceted role of education in the development process underlines the need of every country for a more flexible, comprehensive and diversified education and training programs. Technical education is the smallest sector of the whole educational system has a long lasting significance in meeting the economic needs of the country through industry and commerce (Vanables, 1956).

Cognizant of this concept, the education system should incorporate both, general and vocational education at all level in a reasonable proportionate. Without properly trained man power in industry, commerce and the public service a country cannot exploit its own national resources. Of course, the choice of trades and professions in which training should be made available must be peculiar to the particular country based its priority. Here, it is worthwhile to mention some argument in favor of TVET and against TVET. According to Barlow (1973), one of the principal arguments for TVET is that :

> *" It is a social necessity in theory and in fact it represents an individual's turning point from economic dependency up on the social structure to his independent posture as a productive member of society"*

Concerning TVET, some scholars argued for its provision as it is an integral part of general education, a means of preparing for an occupational field and an instrument to reduce the mismatch between education and employment, school and society at large. (Tilak, 2002), Proponents of vocational education also argue that the effect of vocational education on the opportunities of the academically weak should not be judged against the odds of obtaining college education or of entering high prestige occupations, but it should be evaluated by the extent to which it helps these students avoid unemployment and increasing their chance of becoming skilled workers, (Arum and Shavit, 1995).

Carton (1984) points out the following conceptual advantages gained from integrating TVET:

- It contributes to improving economic efficiency and raising productivity.
- Enhancing a climate of industrial culture in the less developed countries.
- It equips the trainee with skills and knowhow which are directly useful in employment or self employment.
- It provides better opportunity to less advantage segment or vulnerable group of the population.
- It helps in reducing the pressure for higher education to expand if vocational courses are made terminal in nature.
- It improves the overall quality of education by making it less abstract or more related to their own work environment.

On the other side, the emergence and growth of TVET is not blameless. There are some scholars arguing against the importance of TVET. (Vanfosen, Janes and Spade, in Arum and Shavit, 1995) argue that, vocational education inhibits the future socio economic attainment of students have shown that it reduce students' chance of attending college. (Pscharopuolos and Loxely, in Tilak, 1988) also realized that the powerfulness of vocational training, but argued that it should be given outside the formal education system.

It is true that the arguments for and against TVET have their own positive and negative role in the development and expansion of TVET. Even though, there is criticism against TVET, the most important point that should be given emphasis is, at what level TVET should be given and what should be the proportion of vocational course.

Because of focusing on vocational technical education and neglecting the general education cannot bring the desired economic development. The two forms of education have their own paramount importance in the development of nation's economy. The purpose and objectives of TVET in a given country limits the scope with in which TVET is to be developed and carefully implemented. However, in view of the change in the labor market the why question of TVET have become diversified as they are not only economic but also social (Atchoarena and Delluc,2002).

The major purpose of TVET is to train a skilled labor force that can be adapted to the requirement of the labor market (Atchoarena and Delluc 2002). (Kazanas and Wolf, 1973) also elaborate that :

> *" The purpose of TVET is to help the individual to develop desirable and effective work habits and acquire the necessary knowledge and skills of an occupation of either enter and/or make progress on it ".*

Based on this general concept, there are commonly shared specific thoughts about TVET. Some of these thoughts are:

- Exposing pupils at the basic education level to a wide range of practical activities in order to make them familiar with and to stimulate their interest in vocational subjects so as to give them equal opportunities to choose their future career.
- Equipping students with relevant production and entrepreneurial that will prepare them for gainful employment or self employment.
- Providing skilled labor to address the demand for man-power in the scientific technological and commercial sector of the nations' economy.

2.1.2 Theoretical perspectives of TVET

In relation to different outlooks about TVET, "what valuable knowledge should be learned ?" & "what valuable skill should be trained ?" are the major theoretical inquiries. They are the most controversial theories challenging educators & educational policy makers throughout history. The two educational philosophies emerged and are explored value issues, articulated sharply & forwarded differing policy recommendations are the theory of vocational philosophy & the theory of liberal philosophy.

The main argument of vocational philosophy lies on the point that the main objective of education is to teach knowledge required to fit men for some special mode of making their livelihood, whereas that of the liberal philosophy says that education should serve the purpose of enhancing the capacity of individuals to lead a full life. The theory of liberal philosophy finds its greatest support in theology, in the humanities & in the liberal arts of colleges. While theory of vocational philosophy finds its advocates in the science & the professions, (Allen 1998).

Historically the term « liberal arts » first occurred in Greece, in the 4th century B.C. As Allen (1998), the term liberal arts, in its original context, implies the skills of a free man out to have & traditionally it has been considered suitable educational value for the potential leaders of the society. The liberal art philosophers hold the concert that education should serve the needs of the individuals. They believe that people seek to understand the world they live in simply as a matter of curiosity. They consider that the pursuit of truth is the highest virtue that may be found, usually, through the exercise of reason.

Vocational advocators strongly argue that professional expertise should be developed not as a matter of idle curiosity, but because of its enormous significance for the community, the nation need of trained human power. Truth to the supporters of vocational principle is perhaps not an absolute, unchanging verity but something that is always discovered, tested & applied. The purpose (objective) of education is essentially to improve man's lot and to travel farther along the way, called progress, (Allen, 1988).

The concern with vocational aspects of schooling in any country has increased at the time when job scarcity was considered as a significant social problem, as well as at times when these unemployment problems were believed to be caused by poor schooling practices that were claimed to be related to the learning unrelated to life, concentrating on the academic neglecting the practical and technical aspects, hence, ignoring the skill needed by the labor market. The evidence cited in most cases, as (Jonatan, 1994), is that the jobless are found frequently without skills when they liable school. These claims however, have been described by many analysts who have demonstrated that in periods of mass unemployment.

There are few jobs at all skill levels than there are qualified occupants for them, so that, even though it might be true to claim of an individual that lack of skill had led to unemployment, that could not be always true for the young as a group. And hence, it can be argued that vocational programs might increase the competitiveness of individuals in a context of scarcity itself, for that depends upon the economic circumstances & the political choices, not upon the type of education (Abayana, 1999)

Nowadays, there is no single dominating educational philosophy. In any country, schools are operating based on varieties of philosophical stand points taken from both liberal & vocational philosophies.

According to (Goodland, 1984), schools would assume four set of goals, and those are:

Academic ... refers to aiming at training students with a broad array of knowledge and intellectual skills.

1. **Vocational** ...refers to aiming at readiness for the world of work & economic responsibility.
2. **Social & Civic** ... refers to aiming at training students with skills and behavior required for participating in a complex democratic society.
3. **Personal** .... refers to aiming at developing individual talents & self expression.

Coming to Ethiopian current practice of tracking, the secondary school students in to different curricular tracks (Academic, Vocational and Technical), without considering their interests and appropriately related academic capabilities by using a series of competent examinations followed by adequate guidance & counseling services, it seems to be highly subjected to undemocratic practices that it has a huge tendency to throw up artificial barriers to the educational programs, and thus, to unfairly predetermined the social destination of our young people without their consent. Therefore, our educational policy makers should alertly note the argument of (Lazerson, 1985). He states that :

> *" ...no school practice undermines equality more than tracking of students, especially the segregation of students based on class and race. For many students, being placed in to the vocational track is being limited to courses that are much less demanding & significantly less rich in content than they have a right to expect ".*

As a matter of fact, when education is planned, it should be planned & organized in such a way that the training of the mind (educating the intellect), through the liberal education should come prior to that of the training of the body through the specialized education. Otherwise, if the order is reversed, the countries education may lose its primary objective of librating its citizens from what educators call ignorance.

Therefore, it is recommended that, as several educators do, vocational, technical, or professional programs should be arranged for all students, irrespective of their intelligences & social classes, after they attain an optimal mastery of the secondary level general education. In this regard, solid foundation is advisable in general secondary education of at least four years guaranties higher achievements in any specialized occupational education and training areas (Lazerson, 1985).t

2.2 Overall Development of TVET

Traditionally, Technical and Vocational Education and Training (TVET) has been fragmented and delivered by different providers at various qualification levels. Public TVET institutions under the education sector were concentrating on producing middle level technical graduates at post grade 10 level. In parallel with this, public and private companies have had their own TVET programs, as have NGOs and private TVET providers. Meanwhile, in non-formal TVET programs, public institutions, NGOs, and private schools offer employment-oriented TVET programs to various target groups, including school leavers, people in employment, school drop outs and marginalized groups in the labor market. Unlike formal TVET, these programs are not yet systematically delivered.

Even though the job training is widespread, but due to the absence of a systematic assessment and certification system there are currently no mechanisms to recognize informal occupational learning. Traditional apprenticeships in the small and micro enterprise sector constitute another presumably important, yet entirely un-researched, training environment. Public and private training schemes planned to produce administrative and health personnel to the market in sufficient quantity. Agriculture TVET programs, which have been massively expanded during recent years, are disconnected structurally with non-agriculture TVET programs.

Overall, it is unknown how many Ethiopian in total have access to relevant TVET (including formal, non-formal and informal TVET). It is assumed, however, that demand by far exceeds the current supply and that the majority of the population is not reached by TVET offers at the moment. In particular, TVET accessible to school drop outs, unemployed, workers in industry and prospective entrepreneurs, people living in rural areas and women in very short supply.

- Since late 1990s, the government has committed itself to overhauling and reforming the basic framework conditions of the TVET system. This measure recognized the fact that while the country was in dire need of craftsman and technician, training programs lacked relevance to the workplace reality. Nevertheless, this reform process was slow and limited by the fact that all efforts and resources were directed towards the massive quantitative expansion of the public TVET supply.
- As a consequence, the programs, do not address actual competence needs in the economy, with most programs of low quality and theory-driven due to resource constraints and lack of skilled TVET teachers. A systematic integration of TVET with the world of work has not yet been achieved. Most curricula used in formal TVET were not developed based on occupational standards.
- With the introduction of the new middle level TVET programs, an industrial attachment period has been introduced to formal TVET. However, its implementation has faced a number of problems, mainly due to the lack of cooperation of the employers as they were not consulted during the planning process.
- An internship and cooperative training system based on profound cooperation between TVET institutions and employers and a joint training delivery still needs to be developed in order to increase the quality of TVET and hence, the employability of graduates. There are also indications that TVET lacks effectiveness and efficiency. Studies have shown that many TVET graduates, as mentioned so far, remain unemployed even in those occupational fields that show a high demand for skilled manpower. Furthermore, substantial resource wastages occurred as a result of under utilization of equipment in public TVET institutions.
- The shortage of a sufficient corps of TVET teachers/instructors represents one of the obstacles to TVET development in Ethiopia. The quality of TVET teachers/instructors has suffered as a result of the low reputation of their profession.
- Most TVET teachers/instructors have relatively low formal qualifications, severely affecting TVET delivery at higher qualification levels. Furthermore, technical teachers, more often than not, have been unmotivated. They did not choose to become technical teachers, but were placed in technical teacher colleges because there were no other options available to them. TVET teachers/instructors are (mostly) inappropriately & practically skilled, i.e. not competent to provide TVET in accordance with the occupational standards.

- This is a result of a training system that long emphasized theoretical knowledge (though often not aligned with modern technology requirements), disregarding the importance of practical skills and appreciation of the world of work. Additionally, under-funding is a structural problem in the TVET sector, particularly in the public system. Costs of TVET remains high, if it is to be provided as centre based training, which is still the predominant mode of TVET delivery in Ethiopia.
- As with most other countries, public TVET programs in Ethiopia are usually more expensive than general education, requiring lower than average teacher/student ratio and substantial capital and recurrent expenses incurred through practical training. As a consequence of budgetary constraints, most urban public TVET programs are under-funded while rural public TVET programs suffered from poor facilities and shortages of training materials.
- Despite these immense structural problems, important reform measures have been introduced after the adoption of the National TVET Strategy of 2002 and the TVET Proclamation of 2004. A significant step was the broadened governance structure for TVET through the establishment of a National TVET Council comprising representatives from different government sectors including:

➢ State representatives, public and private TVET providers and the business community. This represented a step towards institutionalized stakeholder involvement and helped stimulate deeper integration and understanding of TVET within the broader Ethiopian development environment.

➢ A further strengthening measure of this governance set-up, however, is necessary while the TVET reform is unfolding. Another important measure was to conceptualize and start implementing a new quality management system within the TVET sector.

➢ In line with international best practices, it was decided to move towards an occupational standard-based TVET system to replace the current curriculum-centered approach and to establish an occupational assessment system opens to graduates and candidates from all formal, non-formal or informal TVET schemes.

➢ The system of occupational standards together with standard-based assessment and certification has to be considered the centre piece of a TVET reform towards relevance, demand-orientation and accessibility. It requires further conceptualization and accelerated implementation.

2.3 Quality in terms of Effectiveness

- **Effectiveness**

For TVET to hit its quality, ideally to get all TVET graduates employed and contribute to the economy, it needs to be effective. The quality in terms of effectiveness can be manifested by having a relevant curriculum, relevant training (comprising all the necessary knowledge, skills, and attitudes) with the appropriate trainer quality and training materials in a relevant occupation that is demanded in the economy.

Therefore the TVET system should make sure that all work together for the targeted outcome. Evidence from a wide range of studies emphasize that the unit costs of TVET are high when compared with the costs of general education. The reasons for this include the requirements for equipment, specialist facilities and consumable materials; the lower trainer-trainee ratios, particularly in workshop learning; and the higher salaries of TVET teachers in many countries. In seeking ways of reducing technical and vocational education's costs, therefore, a prime question remains whether investment might more appropriately be made. One need to make sure that the investment should be fair and effective, targeted to the expected output only (MoE – NTVETS -2008).

The significance of the relationships between the labor market and the providers of TVET cannot be over-emphasized. There are a number of ways in which links might be improved, But for these to work, employers as well as providing institutions need to improve these links; and this occurs where employers need the skilled outputs of the institutions.

While this argues for relevant curricula, well-trained staff, trainees who are appropriately prepared at the start of their studies, and satisfactory facilities and equipment, if none of these are sufficient, the local or national economy is unable to absorb the trainees when they complete their studies.

Researches on TVET reinforce the significance of good management and leadership for effective provision of education and training. The economies of scale gained when providing a wide range of facilities within one institution are only achievable when it is well-managed. The complexities of managing large institutions demand high caliber management skills, which in turn create training and development demands.

2.4 Quality in terms of Outcome-Based Approach

The goal of the TVET system - as formulated in its vision and objectives - is to create a competent and adaptable workforce (both male and female) to be the backbone of economic and social development and to enable an increasing number of citizens to find gainful employment and self-employment in the different economic sectors of the country (MoE – NTVETS - 2008)

To this end :

- The national TVET system, in line with many modern TVET systems worldwide, is re-organized into an outcome-based system. This means that identified competences needed in the labor market is the final benchmark of teaching, training and learning, and that all institutions, rules and regulations of the TVET system is (re-)defined so that they support citizens to become competent.
- Competence is a broad concept comprising the possession and application of a set of skills, knowledge and attitudes which are necessary to successfully compete for jobs in the labor market to be a productive and adaptable entrepreneur, employee or self-employed.
- Competences are described in National Occupational Standards to be developed by people knowledgeable on and experienced in the world of work. As such, the National Occupational Standards define the outcome of all training and learning expected by the labor market, and they form the benchmark of all quality management within the TVET system.
- Output quality of TVET delivery is measured through a process of learner's achieved competence. This is done through occupational assessment, which is based on the occupational standards. A candidate who has proven, through occupational assessment (which may be one assessment or a series of assessments), that s/he is competent will be awarded a National Occupational Certificate, which is the official proof of a person's competence in a TVET relevant occupational area.
- In the outcome-based TVET system, the goal of TVET providers is to create the necessary skills, knowledge and attitudes of trainees, so that they are able to perform according to occupational standards, and hence receive certification. Thus TVET providers have to develop curricula that are based on the National Occupational Standards and are appropriate to the relevant learning process

- Curricula have to consider specific requirements of the target groups and specific local labor market requirements. As a consequence, the previous practice of prescribing binding national curricula is no longer be implemented once the outcome-based quality management system is fully established. Instead of this, each TVET provider may find their own curricular solutions to provide high quality TVET to their specific target group.
- In the meantime, considering the weak state of development of TVET institutions in Ethiopia, the TVET system ensures that all necessary support is given to TVET providers to develop appropriate curricula and develop capacities for high quality TVET delivery. This may be facilitated through developing curriculum development guides, model curricula or the like to serve as orientation and assistance to TVET providers, (MoE - NTVETS, 2008).

A. The Outcome Based Training Delivery Approach

As an integral part of the TVET Reforms being pursued by the government of Ethiopia, TVET system is now focused on delivering its services according to labor market demands and industry relevance. And to cope up with this new purpose, TVET system adopted the outcome based training delivery approach. The outcome based approach to learning places most emphasis on what the learners should be able to do is focused on performance rather than on learning process.

It is also concerned with the demonstration or provision of evidence of knowledge, skills and attitude to a specific level of competence. It is important to note that the curriculum design and structure play an important role in realizing this goal. An outcome based curriculum help facilitate the learning process in a way that learners can acquire set of competences required at the workplace as defined in the Ethiopian Occupational Standards (EOS).

The TVET reformation guide is presented to assist industry experts, Instructors and anyone else willing and able to undertake or participate in the development of TVET curriculum. This reference guide is intended as a user friendly, practical guide to preparing an outcome based TVET curriculum. Though this may be read as a self-contained reference, optimum benefit can be gained if the user approaches after becoming familiar with the content of the relevant Ethiopian Occupational Standard which serves as the main basis of the training program. (MoE – NTVETS – 2008)

The guide is intended to :

- Create a common understanding among all relevant actors in the curriculum development process about key principles, scope and formats of curricula
- Facilitate the transformation of Ethiopian Occupational Standards (EOS) into outcome based curricula.
- Provides user-friendly help and advice for all those, who are involved in developing curricula based on Ethiopian Occupational Standards (EOS).

Moreover, this guideline presents a curriculum framework providing relevant general information and it includes brief introduction to the Ethiopian Occupational Standards; guiding principles in the curriculum development, the design and structure of an outcome based curriculum, the steps in transforming Ethiopian Occupational Standard into curriculum, learning module design, and templates for TVET program design. The outcome based approach is one form of independent learning method. This approach enables learners to be master of their own environment and in charge of their own learning with the focus of internal control. It is also characterized by the integration of theory and application as two dimensions of effective learning process. In the TVET System, the outcome based approach consists a combination of lecture-discussion, individualized learning activities, demonstration, practice, mentoring, field immersion and feedback.

B. Features of outcome based approach

Features of outcome based approach are systematized in the following ways.

- The TVET program is based on curriculum developed from the occupational standards.
- Time for starting and completing the course is not within rigid time periods
- The system allows for Recognition of Prior Learning.
- The system also allows for learners to enter and exit programs and receive an award for modules attained at any point.
- Learning is driven by competences written to the national occupational standards.
- Local education and training is benchmarked to international standards.
- Learning is modular & provides opportunity for right mix of on & off the job.

- Learning module is defined as an instructional package dealing with single conceptual unit of subject matter and enabling the learner to master one module before entering another.
- Assessment of learners is based on performing the competence required by a specific learning outcome or learning module and by the occupational standard as a whole
- Training materials are directly related to the unit of competence and the curriculum learning modules. (NTVETS, 2008).

2.5 Quality in terms of Resource provision

The provision of adequate training material and equipments as well as the human and financial resources are the backbone of the quality of TVET programs. The limited human, material and financial resources form clear and major blocks on to the TVET programs. The enrollment capacity of the institutions largely depends on the availability of these resources unless and otherwise, the training plan and decision is based on the restricted supply and unavailability of the resources and as a result, TVET intuitions cannot achieve the desired goal.

Apart from accessible and consistent provision of relevant resources, in order that TVET programs become effective in Africa and in Ethiopia as well, we must consider the living force all around today. These forces include the supply and demand sides of TVET and the socio-economic aspects. In general, the success of the TVET programs highly depends on the sufficient provision, availability and proper utilization of these resources.

2.6 Quality in terms of Cooperative Training Programs

The concept of cooperative training comes in to existence from the training of master craftsmen developed by medieval guilds. It is basically the processes of transmitting know how together with practical application of the knowledge. The earliest type sense of mark, until some years ago is the so called organized apprenticeship program for scribes in Egypt are recorded as early as 2000 B.C (Finch and John, 1988).

Apprenticeship/cooperative training in the dual system gives the trainees to obtain qualifications which open the way to various employments with in occupationally structured labor market. In addition to that cooperative training (apprenticeship) involves a strong cooperation between the institutions/colleges and employers/organizations offering practical training. However there are major constraints that hinder cooperation between institution/colleges and enterprises, (UNESCO, 1996) cited out them as following.

- Lack of effective and modern industrial attachment and managerial mechanisms between the TVET and the enterprises.
- Reluctance of the enterprise - they assume that the process is expensive and unpractical because most of local enterprises are small and weak that they do not have sufficient capacity to cooperate with the TVET institutions/colleges.
- In appropriate method of following up the trainers and assessment supporting system.
- Inadequate incentives for the trainees.

Even though, there are problems of implementing cooperative training program from both sides it has an indispensable role especially in the middle level TVET program in particular and in the whole system at large.

In such program, there is no matching between the curricula of the two training places, the fulltime TVET program & the firm where the trainees are assigned to different infirm internship programs which enables them to add hands on experience to the primarily theoretical training they receive in their full time training institution. In contrary to cooperative training the modern apprenticeship program, the full time TVET institutions train only the content of vocational theory & to some extent general subjects where as the firms place major emphasis on providing job related training & on complementing the vocational theory by practical training.

In this system, training is based on the complementary between the enterprise and the TVET institution in the sense that it involves not merely the sum of the knowledge acquired in the training class rooms plus the knowhow acquired within the enterprises but also the constant population of the knowledge acquired. Hence, in the modern apprenticeship training the two reinforce & complement each other to produce trainees who are better qualified & able to adapt to the business world

Steps in Cooperative Training

- **Planning Quality Cooperative Training**

Before starting a cooperative training program, enterprises and TVET institutions should negotiate and agree on types of occupations in demand and jointly develop a training plan right from the occupational standard or from a curriculum derived from this. A training plan shows topics of the curriculum to be taught either in enterprises or in TVET institutions. Cooperative training cannot be successful without a training plan. Planning of cooperative training can also begin at the outset of curriculum development. (MoE 2010 – Cooperative & In-Company Training Manual)

The curriculum developers/teachers at a TVET institution should invite relevant experts from companies to take part in the process in order to jointly plan topics/ competences to train at the TVET institution or at the company/workplace. Accordingly, this training plan forms an integral part of the curriculum, maintained both at the training institutions and at the companies.

- **Following up the Training Progress**

Monitoring student and enterprise records will be necessary to determine training progress. This should be a balance between periodic formal performance reviews by the vocational counselor/ TVET teacher and informal daily observations and feedback from the enterprise trainer. Assessment of trainees during the training program is held in enterprises and TVET institutions by the enterprise trainer and TVET teacher.

2.7 Quality in terms of Labor Market Information system (LMIS)

Easily accessible high quality labor market information (LMIS) is a key ingredient to the success of a modern economy. Labor market can improve both the short and long term matches of labor supply and demand insuring that TVET graduate acquire the skill sets required by employers for today's dynamic labor market. To this end, labor market information system (LMIS) play a significant role in planning the TVET program and systems (Atchoarena & Delluc, 2002) In outcome based TVET system easy access to national and local labor market information is of vital importance in meeting the demands of the employers by providing the required labor market may be conducted in different levels and bodies.

Local labor market assessment have to carried out by the TVET institutions/colleges, while regional labor market are assessed by regional TVET Bureau following the economic corridors of region. Therefore, regional and local TVET planners and officials need to check if their training mainly targets lower and middle level occupations based on the information.

➢ Bridging middle level training program with labor market (employability)

Dynamic changes in the field of technology suggest that socio-economic prosperity everywhere depends on extensive efforts to prepare youth in technical and vocational trainings for paid and/or unpaid employment in the jobs that demand new and advanced skills. These skills are provided with in the form of training based on units of competences in the TVET Institutions & Colleges.

> *«Training centers (TVET institutions/colleges are striving to offer job related trainings so that the graduates will be competitive and gets access to employment. The employer in the industrial center, on the other hand, require self directed and committed worker who generate income".* (Yekunoamlak, 2001)

Of course, both technological an employability skill obtained from TVET are a key to decent work, As Overtoom, (2000) pointed out, *"employability skills are transferable core skill groups that represent essential functional and enabling knowledge, skills and attitudes required by the 21st century workplace."*

On the other hand self employment represents an important route in to the labor market demands of self employment more than being technically competent in a certain occupational trade. In order to become a successful entrepreneur, people need self confidence, vision, creative, realistic assessment of the current and future market, basic business management skills, motivation and readiness to risk (MoE, 2006).

➢ Labor Market Monitoring and Forecasting

The analysis of labor market information is a pre-requisite for re-orienting TVET to focus on labor market demand. Labor market information comprises information on the supply side of the labor market

That is demographic developments, number of school leavers at different levels, number of unemployed by region and qualification profile, etc. and information from which the present and future demand for skills and occupational qualifications in the labor market can be derived i.e. skill gaps, employment trends by sectors and occupations, emerging markets.

Substantial relevant labor market information and forecasting is already available in particular through the Ministry of Labor and Social Affairs, the National Statistics Agency and others. Such labor market assessments will not be replicated within the TVET system. However, available information needs to be analyzed for TVET purposes with a view to extract all information necessary for planning and monitoring in the TVET system. (MoE – Labor Market Information System for TVET – Manual - 2010).

➢ Conducting labor market Assessment

Labor market assessment may be conducted by:

- Distributing a survey instrument to potential employers, either the entire population or a representative sample; and/or convening a focus group to collect information. Local labor market assessments have to carried out by the TVET institutions, while regional labor market are assessed by regional TVET agencies following the economic corridors of the region.

- National economic development strategies should also be referred to during assessing the market. For example, the industrial and urban development strategy focuses on labor intensive marketing/production systems. Therefore, regional and local TVET need to check if their training provision mainly targets lower level occupations, based on this information. The information payback of a survey is valuable because of the number of employers you may reach. It is necessary to be realistic, however, about the effort and cost that goes into such a survey.

Depending on the size of the market, survey might be mailed or e-mailed to several hundred potential employers. It is important to identify the appropriate person to receive the survey. In most cases, it would be the Government (federal & State Supported & maintained) Internet-based Data repositories & dissemination other government & private sources hard copy reports & data summaries self-service & LMI Intermediaries user communities labor market information system supervisor of the

occupation in which you are collecting the labor market information. Having the name of a specific person to complete the survey will tend to increase your response rate. Do not send the survey to the human resources department.

If you plan to send the survey in the mail, be sure to include a cover letter explaining the purpose of the survey as well as a self-addressed stamped envelope to return the completed survey. Someone must be available to tabulate the survey results, whether by hand or by processing scan able answer sheets. The percentage of returned surveys can be low. Because of these challenges, surveying is best handled by institutions that provide administrative and financial support. Focus groups may provide a less complete picture of the local market, but are easier to plan. You may arrange a meeting with ten to twelve industry leaders whose reputations indicate they are knowledgeable about the occupational field as well as about the community.

The survey items are the focus of discussion. Be sure to thoroughly plan what information you want to collect during the focus group meeting. One advantage of conducting a focus group rather than a survey is you tend to collect more detailed information, and information you may not have considered that is useful in developing the training program. The main cost of the focus group is refreshments which can range from dessert to lunch, depending on your resources. An additional bonus is that some of those attending may become advisory committee members, who eventually would help you develop curricular goals and objectives for the training program.

➢ Practical steps of labor market assessment

The main purpose is to find, process/analyze and present labor market trend in order to ensure a better matching between labor market needs and supply. The more effective anticipation and matching of labor market need will have crucial contribution to the promotion of labor utilization and labor productivity and therefore growth and job, through the increase of employment and reduction of unemployment. To use labor market information effectively, you need to be able to carry out the following practical steps. A) Researching LMI, B) Interpreting LMI C) Assessing LMI, D) Presenting LMI (MoE - LMIS, 2010:10).

2.8 Quality in terms of Monitoring, Evaluation & Feed back

To monitor the progress of the quality of TVET program and to identify bottlenecks at an early stage, the TVET executive bodies, together with their stakeholders, set up a monitoring system that will:

- Translate the objectives of this strategy into indicators and identify means of verification for the indicators :

➢ Ensure that indicators are aligned with other national development indicators.

➢ Make sure that relevant information to verify progress is generated through the Training Management Information System (TMIS)

➢ Commission base-line studies if necessary and oversee subsequent data updating (MoE 2008)

A. Monitoring

The monitoring, mechanisms of the TVET program links to the overall TVET system as specified in policy and the strategy so far. Monitoring is an integral part of TVET program and is carried out to measure the track realization of training activities, output, strategies and objectives. The monitoring is more of a training focused, but there is a need to further work out on how monitoring the training program should be (MoE 2008)

- ***Monitoring in TVET has the following purpose:***

➢ To assess the efficiency about the provision of resources, and the effectiveness of the training methods and approaches used by the TVET program

➢ To ensure the intended out puts are produced and are positively contributing towards the intended changes as indicated in the objective of each institutions/colleges and in the strategy as well.

➢ To create participatory mechanism at all levels between the right holders (the trainees and trainers) and duty bearers (regional TVET Bureau, the TVET board, the partners, the stakeholders and the institution/college itself) (MoE 2008)

In addition to further work on training program of TVET for especially middle level (3-4) based on monitoring system, policy makers, national and Regional TVET bureaus, respective intuitions/colleges by themselves are expected to refine/reform their monitoring system. This system will further elaborates data collection tools/instruments for assessments based on TVET programming approach (MoE 2008)

B. Evaluation

Evaluation of any program refers to assessing the performance against the standard set and intended objectives and strategies. Wenteling and Lawson, (1979) scholarly defined Evaluation as :

> *" It is the process of delineating, collecting and analyzing useful and touchable information for judging alternative decisions ".*

There are two type of Evaluation in technical and vocational training programs, pre-training and post training evaluation which could be conducted following course termination, (Yekunoamlak, 2000).

Pre-training evaluation refers to the survey of the labor market and the enquired skill which may serve as the bridge between the trainer and the world of work for future job opportunity. Post training evaluation is carried out at the end of each training and these evaluations are accompanied by their components, namely, self evaluation by the trainee, on sight (on workshop) visit by external evaluation team, and the employers. Furthermore, the 3rd type (on/during training evaluation) is also essential to take corrective measures (MoE 2008)

In light of the above description, existing practice of TVET training evaluation should be further strengthened as it is said so far, participatory evaluation should be employed for active involvement of those with a stake in the program, that are target groups (the trainee) and any other pertinent parties participation should be encouraged throughout all types and phase of evaluation outcomes, such kind of training evaluation should be used to further refinement and improvement of the TVET program.

The overall purpose of the periodical evaluation is to facilitate thinking of the concerned bodies about what the TVET program and its outcome based approach are all about including its objective, how it meets the objectives and how it knows if it has met it objectives. To produce data or verify result that can be used for promoting TVET strategic issues and identify good practices and feed backs for further strengthening of the TVET program is very essential. In addition to evaluation of the TVET program, the issue of certification become integrated and component part of the whole program. As a result of effective evaluation standardizing the certification of a certain level of program has a paramount role in linking the trainees with labor market (MoE 2008)

C. Feedback

The monitoring and evaluation system that is developed for the TVET program elaborate on how documentation should be done and how feedback, information sharing and dissemination should be done. Best practices are documented and shared among all stakeholders and front liners (trainees and trainers), recommendations for change in strategies and implementation emanate from the feedback that takes place while monitoring and evaluation the program (MoE 2008)

Thus, the feedback process employed:

2 Training Management Information system (TMIS).

3 Documentation and dissemination.

4 Reporting.

2.9 Traditional Development of TVET programs in Ethiopia

According to (Teklehaimanot, 2002:2), Ethiopia was one of the nations that ancient civilization has been revealed, some physical & social remains found in several places of the country and this implies that Ethiopia has contributed mainly for the civilization of mankind in terms of practical knowledge and skills, even though it have been highly discouraged for a long historical period of time. The undeveloped & ignored provision of technical & vocational education and training has been categorized into three distinct but consecutive phases such as, Traditional system, Controlled system, and Market oriented systems (ILO,1993:3).

The traditional TVET system in Ethiopia has played a significant role has played a significant role in preparing youngsters for the world of work. The unstructured curriculum basically depends on the occupation of the family. The focuses on the transferring of the existing knowledge and skills of the family to the young apprentice in the informal way and the management responsibility and the cost of training are still burden of the families (Yoseph, 2002:3). The traditional system was managed & financed privately and remained substantial by the concerned families and the communities for a long time and it was the very efficient training in the history of Ethiopia. The graduates of all the traditional technical and vocational training system were engaged in employment or in production and service after the completion of skills training.

There were no unemployed graduates in the traditional TVET system in the country. The interest of the state in introducing technical and vocational education and training as patterned formal schooling on the experience of advanced countries in anticipating that it could contribute for greater economic development. It was with such rational intention that technical and vocational education was introduced in the secondary school system (Wanna, 1996:297). Having the objective of making the curriculum job oriented so as to produce middle man power, the concept of comprehensive program was introduced to the secondary schools of Ethiopia.

For a long period of time, comprehensive high schools were not effective and decided to strengthen the existing schools and to introduce well equipped technical training institutes. During the1980s vocational and technical education schools were consolidated and three years of training was given to students who completed grade ten in the academic steam. The program in these institutes was referred as 10+3 program (Wanna, 1998:57).

In 1994, the new government of Ethiopia began to initiate the reform program in education & training system, though the curriculum was blamed that it was rigid and did not reflect the demand of the labor market. The trainers could not escape from the government blame that they lacked the necessary qualification and industrial experience to handle their tasks. The scarcity of resources to finance the system was also indicated as the major causes of the crisis (Yoseph, 2002:8). Strong attempts have been made to show determination for extensive skill training by designing a new education and training policy in 1994 in which TVET program has been given a special attention. But by merely establishing training institutions/colleges, we cannot be confident that that this alone cannot guarantee the emerging desires of the youth to take the skill training just because the majority of our young generation is from poor family background.

Keeping this in mind, the present TVET program in Ethiopia underway a major reform practice. The aim of the program is to create a TVET system to be self-employment oriented, demand driven and appropriate to development needs of the Ethiopian economy (MOE, 2003:3).

In this connection, Hossana & Wolkite Colleges are among those colleges which are potentially transformed from TVET colleges to Polytechnic Colleges. The number of trainees in all programs surprisingly grown in 2011/12 following the academic progress of the colleges. 2808 trainees in Hossana and 1378 in Wolkite Polytechnic Colleges are enrolled within newly reformed major streams and departmental fields of study. Indeed, this does not include the number of trainees who are being trained in extension and non formal programs.

2.11 Actual problems affecting quality of TVET program

2.11.1 Placement & streaming problems

Potential problem in our TVET programs starts with the trends we employ in placement & streaming of prospective trainees. The major problem in matching the trainees with fields of study is the gap in identifying the need & interests of the trainee's accordingly. As a result of dynamic changes in social & technological innovations, the youth can develop complex behaviors which could not be handled. Thus, a 10^{th} grade complete young boy/girl may prefer to join a skill training program as a means of getting job in a short time because of the poverty he had. It is obvious that the youth in Ethiopia today have lack of skill to easily join the world of work. It is also true that their demand for jobs is very high. (Adopted from Eyasu, T. 2007)

By simply looking at these facts, one may conclude that the youth will be willing to accept any type of skill training for the sake of getting job. It is with this assumption that SNNPR TVET bureau and the respective colleges encourage all students who couldn't join the preparatory program after completion of 10^{th} grade to TVET institutions/colleges without proper assessment of their needs/interests. But in contrast to what is being done practically, Ethiopian TVET strategy (1995:12) describes that students who have interest & inclinations for skill training will be placed in TVET institutions after completing the secondary education that is grade 10. Indeed, the 10^{th} grade completion marks cut offs which is accustomed to be the requirement for entry to the TVET regular program might not be effective (satisfactory).

This means, in reality, students who are assigned to TVET program are those who could not score an adequate grade point at 10th grade examination that enable them to join the preparatory program. These students might be inferior in their academic performance, and whose interests are not well considered

Designing a program and tracking trainees into its various fields cannot guarantee that the most needy target group will avail themselves of its service for the simple reason that their feelings and interest are not properly addressed in the activity. The success of any training program largely depends up on the way in which the program is interpreted by its target population (Weissman, 1969). Weisman further states that even the preliminary processing can have an important influence on whether the trainee drops out from the program or, if he continues, whether he derives as much benefit as possible from it. What a paradox for one to expect success from a program in to which students of lower level abilities are tracked without proper assessment of their interest, aptitude and capabilities.

What makes our TVET program highly controversial starts from this early stage of student placement in to TVET program and streaming them into various fields of training ? A program into which students of lower level abilities are recruited and tracked may be run as a program but only to prove the inefficiency of the entire system. The National technical and Vocational and Training (TVET) strategy draft (2006) admits the fact that there are indication of TVET lacking effectiveness and efficiency. In reference to what studies have indicated so far the draft of strategy describes,

> *" Studies have shown that many TVET graduates remain unemployed even in those occupational fields that have a high demand for skilled manpower. Furthermore substantial resource wastages occurred as a result of under utilization of equipment in public TVET institutions"*

It is true that there is no better environment than educational institution where characters can be formed and changes in behaviors can take place. But the required change can only be realized when the target group has the ability and interest in the activities going on in these institutions and becomes active participant. One important change that our under developed economy expects from our education and training system is the development of entrepreneurship and the production of skilled individuals who can move the economy forward through self employment and innovation.(Adopted from Eyasu, T. 2007)

2.11.2 State of machines and equipments

One of the components of quality training is the training materials and facilities the institution has. Machines, equipment, tools, spare parts and accessories required in the practical training process, in addition to materials like textbooks, manual and references needed for theoretical knowledge all enhance quality training.

Machines have to get uninterrupted power supply and timely maintenance to conduct the training in a way that trainees can develop the skill required within the training hours specified in the training manuals to get the necessary theoretical background, trainees have to be supplied with textbooks and reference materials. It is only when theory and practice are properly combined that Quality of training can take place.

2.11.3 Training Text Books and Modules

The importance of text books in insuring quality of education is very high by stating that students should have quality text books and other instructional materials in sufficient quantity, (MoE, 2002:24). In addition, adequate workshops, laboratory materials, equipment and other available educational material resource especially in secondary school and vocational institutions in order to ensure quality of education. But in contrast to what is stated above, our TVET institutions have lack of text books for major fields of trainings and modules are being used as the basic means of the training activities.

The national TVET strategy (2006) gives emphases to the importance of developing occupational standard for all professional fields at all relevant qualification levels attainable within the TVET systems. It also stresses the necessity of occupational testing and certification of trainees upon completion of their training to prove that they are competent and meet the requirements of the occupational standards set irrespective of how and where they were trained. This shows that uniformity is becoming a crucial issue in our TVET training system. How can this be possible where textbooks, one of the basic means of insuring uniformity in a training activity, are missing ?

Our curriculum and training manuals allow instructors of the same field of training, even within the same training institution to use different reference materials, no matter where or by whom they are written.

An instructor, who by chance or strong effort, have got a well organized reference book will be in a better position to enhance academic performance of his trainees while others, who for any reason, could not get good reference books may not be able to help their trainees properly. Some instructors may even be forced to depend only on their rough notebooks, which were written years back when they were students. By doing so we make trainees of the same entry into the same field of training to be treated differently and yet, we expect all of them to meet a common standard.

2.11.4 Competence of the instructors

Another important component of quality training is competence of the instructors engaged in the training activity. Instructors play important role personality development of trainees. As it is a common practice for trainees to imitate their instructors in any school or training environment, well skilled and competent instructors have high potential of influencing trainees' behaviors. It is when they believe that their instructor is competent in the practical training and theoretical lessons he provides that trainees follow his training program with full attention and curiosity.

The most important characteristics of effective teacher ad listed by (Carin, 1997) are subject matter mastery, dedication, cooperation, creative, discipline, subject matter organization, daily preparation, attention to individual needs, stimulation of thought, skill in motivating work, friendliness and professional interest. To have such strong characters, instructors should be will qualified in the training they have taken before joining the teaching profession. Their skills must also be upgraded and updated through on the job training to minimize skill gaps that might encounter them.

Unfortunately there are large number of instructors in our TVET institutions who do not fulfill the qualification required 1st degree and above to give training in these institutions. Although as stated in the National TVET strategy (2006) the ministry of education believes that highly skilled, qualified, motivated, flexible and creative teachers and instructors are the pillars of any TVET system.

There are still a large number of instructors who have not yet earned their first degree in our TVET institutions and even in those institutions that are providing college level training where 1st degree is minimum requirement.

Even though the strategy aims at systematic further education and training schemes to continuously upgrade the competencies of the existing TVET institutors, there is a clearly observable skill-gap in using and maintaining the machines and equipment available. A number of idle machines can be seen in different training shops, which indicates that the training given to instructors in maintenance of machines and equipment is not sufficient and this has strong adverse effect not only on instructors' competence but also on trainees' performance and entrepreneurial motivation. (Adopted from Eyasu T. 2007)

2.11.5 Trainees' Sense of Competence

Our major objective for insuring quality training through the use of organized training facilities, competent instructors and the like is to produce well skilled and academically competent trainees who can confidently face the various challenges of the labor market. A trainee should have at least one set of marketable skill, he must always be alert and ready with the awareness of what employers expect in relation to work attitudes and habits. But above all, the major problem that the training of the youth must address is the trainees' sense of competence.

Trainees' sense of competence results from an appraisal of the self in relation to the skill he has developed through the training. Cloward and Ontell, (in Weissman, (1996) high light that a young person who has no feeling that he can master the jobs available lacks the required social and psychological traits, the absence of which definitely put his success in the world of work under question.

2.11.6 Career Guidance & counseling service

Guidance and counseling service also has a crucial role to play in relaxing quality in any training and education system. The right and resourceful person for a trainee to contact in school environment, for training fields selection, work related, and other personal and academic problems is the guidance professional. Through guidance and counseling service, trainees can become capable of assessing and utilizing their abilities, aptitudes and interest. Guidance and counseling is a process in which a professionally certified counselor works with students individually, or in groups to assist them in solving educational, vocational, professional and social concerns of the learner in order to become mentally healthy and effective individuals who perform duties at optimal level to achieve full potential, (Gorton, et. al. 1998:81).

In addition to being an educational psychologist, a person who gives a guidance service in training institutions/colleges must have the required expertise in the areas of career choice, and in the psychology of the world of work. Beside this, he has to be a well informed person on employment opportunities, the general behavior of the labor market and on how a person can become successful entrepreneur in the face of competitive challenges out there.

The basic concern of individuals who come to a training institution is how to make vocational choice. (Harkness, 1976) makes an emotional remark to show that vocational choice is a very crucial issue that affects the whole life of an individual. To address this special concern of trainees the guidance service of a training institution must be carried out by professional experts, especially in the area of career counseling.

Chapter Three

3 Research Design and Methodology

This study is aimed at assessing *Factors Affecting quality of Middle Level TVET Program* with reference to Hossana & Wolkite Polytechnic Colleges which are addressed using descriptive survey method. Through data collecting procedures, instruments and genuine information, factors affecting middle level TVET program have been found out.

3.1 Data Sources

The main data sources were Hossana & Wolkite Polytechnic College participants using appropriate sampling techniques. In view of this, 335 trainees, 22 instructors 12 college officers including the deans, 6 regional bureau officials, 20 recently graduated youngsters & 10 CTPOs supervisors were involved.

➢ **Other essential sources which were included in this study are:**

- Relevant books, journals, internet, and other material which contain information related to this study. Documents, reports and records on TVET program found in civil service, trade and industry sector, cooperative training sights, Micro and Small Scale Enterprises (MSSE), Omo Micro Finance (OMF), municipality of Hossana & Wolkite towns, regional TVET Bureau and other relevant sectors.

3.2 Data Gathering Instruments

The trainees and the graduates were provided by 43 close ended & 2 open ended questionnaires while all other participants were provided by 54 close ended & 2 open ended items. In addition, 10 CTPO supervisors were provided by 8 item(structured & unstructured) interview.

330 (98.5%) of the participant trainees completed & returned back the questionnaire in time while 5 (1.5%) of them did not returned for various reasons. 100% of other participants who are provided by the questionnaire, completed and returned in time.

The data were collected from primary sources through focus group discussions & observation check list in addition to interviews & questionnaire which enabled the researcher to obtain 1st hand information. Questionnaire have been provided to large size samples while the interview was undertaken with small size ones.

Chapter Four

4. 1 Presentation, Interpretation & Analysis of Data

This chapter deals with presentation, interpretation and analysis of the data collected from the sample population (trainees, instructors, recently graduated youngsters, college officers including the deans, regional bureau officials and CTPOs) through the research tools (questionnaire, interview, & observation check list)

The questionnaires were distributed to, 335 trainees, 22 instructors 12 college officers including the deans, 6 regional bureau officials & 20 recently graduated youngsters. An interview is also provided to 10 CTPOs supervisors. Other than the trainees, 100% of participants who are provided by the questionnaire, completed and returned in time.

For various reasons, 5 (1.5%) of the participant trainees did not returned the questionnaire while 330 (98.5%) of them completed & returned back the questionnaire in time. In addition, the CTPOs supervisors were provided by structured & unstructured interview. Responses made to each question of the questionnaires are qualitatively analyzed, interpreted.

For the sake of convenience and manageability of the data organization, related questions are treated together in the same table and then presentations of the data are followed by discussions and interpretations. The data that are collected from the participants through the research tools are realized to be sufficient to draw inferences for the conclusions & possible recommendations has been made in the last chapter.

Table 4 Characteristics of the Participants

The following table describes personal characteristics of the participants' in terms of sex, age, qualifications, work experiences and employment status.

N	Variables	Categories	Regional bureau officials		College officers including the deans		CTPOs supervisors		Instructors		Trainees		Graduates	
			N	%	N	%	N	%	N	%	N	%	N	%
1	sex	male	6	100	10	83.3	8	80	14	63.6	183	54.6	15	*
		female	--	--	2	16.7	2	20	8	36.4	152	45.4	5	*
		Total	**6**	**100**	**12**	**100**	**10**	**100**	**22**	**100**	**335**	**100**	**20**	*
2	Age in years	15-20	--	--	--	--	--	--	--	--	196	58.5	6	*
		21-25	--	--	--	--	--	--	10	45.5	133	39.7	12	*
		26-30	--	--	1	8.3	2	20	7	31.8	6	1.8	2	*
		31-35	--	--	3	25	2	20	2	9.1	---	---	---	---
		36-40	3	50	4	33.3	4	40	1	4.5	---	---	---	---
		41-45	1	16.7	2	16.7	1	10	--	--	---	---	---	---
		46-50	2	33.3	2	16.7	1	10	--	--	---	---	---	---
		≥ 51	--	--	--	--	--	--	--	--	---	---	---	---
		Total	**6**	**100**	**12**	**100**	**10**	**100**	**22**	**100**	**335**	**100**	**20**	*
3	qualifications	diploma	--	--	2	16.7	6	60	10	45.5	---	---	---	---
		1st degree	3	50	10	83.3	4	40	12	54.5	---	---	---	---
		MA	3	50	--	--	--	--	---	---	---	---	---	---
		PhD	--	--	--	--	--	--	---	---	---	---	---	---
		Total	**6**	**100**	**12**	**100**	**10**	100	**22**	**100**	---	---	---	---
4	Work experiences in years	1-5	--	---	---	---	---	---	6	27.3	---	---	---	---
		6-10	--	---	---	---	---	---	9	40.9	---	---	---	---
		11-15	1	16.7	2	16.7	---	---	5	22.7	---	---	---	---
		16-20	3	50	6	50	---	---	2	9.1	---	---	---	---
		21-25	--	--	3	25	---	---	--	--	---	---	---	---
		≥ 26	2	33.3	1	8.3	---	---	--	--	---	---	---	---
		Total	**6**	**100**	**12**	**100**	---	---	**22**	**100**	---	---	---	---
5	Employment status	Self-employed	---	---	---	---	---	---	---	---	---	---	2	*
		employed	---	---	---	---	---	---	---	---	---	---	13	*
		Un-employed	---	---	---	---	---	---	---	---	---	---	5	*
		Total	---	---	---	---	---	---	---	---	---	---	**20**	*

NB. Self employed highly refers to those who has been organized in MSSI

We can understand from table 4 that the majority of participants under regional bureau, the respective colleges & academic staff are male. It is clear that share of the females' figure out of the officials, instructors & graduates are 15/60 which constitutes for nearly 25% only. One of the possible reasons for male domination in this regard seems to be the existing system of education in our country in which the attention for females was too low. The same thing is true with regard to the female instructors who participated as a sample size of this study. The ratio b/n male & female instructors are definitely unbalance which indicated how far an attention should be given to bring balance between male and female man power in TVET program.

With regard to the sex range of the trainees, the balance between male and female tends to be near-far in which the difference is 54.6% to 45.4%. The numerical balance between male and female trainees indicated that critical attempts have been made by the government and the respective community as well, in order to enhance the rate of female trainees. However the TVET colleges/institutions and the country at large is expected to exhaustively treat the quantity-quality dilemma of the middle level program in particular & the whole program in general.

Looking at the age composition of the participants, 196/335 or 58.5% of the trainees is in the age range of 15-20 years, which indicates that most of the prospective trainees not only completed 10^{th} grade at a younger age but also join the world of work. The age range of recently graduated participants also assured this reality that their age distribution is nearest to the same category. Regarding the age category of instructors, 45.5% of their age is included in to 21-25 and 31.8% of them are constituted in to 26-30 years old that brings about the sum total of 77.3% which is categorized in to 21-30 years.

Therefore the age closeness between the instructors & the trainees may avoid barrier of rapport or communication during training sessions and/or outside the class. Coming to the educational background of the Instructors, The TVET policy & the strategy as well, allows masters degree for TVET deans & level 5 instructors, first degree for level 3&4 while diploma for level 1&2 programs.

The data in table 4 of item 3 indicated that still 45.5% of the instructors who has qualification of diploma are providing training to level 3&4. Based on this data we can deduce that the actual practice tends to contradict the qualification frame work of TVET strategy.

Concerning the work experience of the participants, 66.7% of regional bureau officials & 91.7% of the college officials worked not ≤ 10 years; rather they served 11-25 years while 33.3% of the regional bureau officials & 8.3% of the college officials have ≥26 years service. On the other hand, 68.2% of the instructors have served ≤10 while 33.8% of them have ≥11 years of work experience, in that they could be potential informants about the middle level TVET program. These experiences would become more effective if they are supported by short term training & experience sharing workshops.

The final part of the item of table 4 describes 13/20 (65%) of the graduates are employed in wage earning sectors, and 2/20 or 10% of them are self employed dominantly in MSSI. As shown in the figure, 5/20 or 25% of the graduates are not joined the world of work. Therefore, it is likely to say that for several reasons including the quality-quantity dilemma of the middle level training programs, we can assume that there might have still more unemployed graduates in different localities.

4.3 Analysis of the data

Resource in TVET institutions/colleges

The Availability, appropriateness & adequacy of resources is a major challenge for most of the TVET institutions/colleges to attain their goals. As it is mentioned in the literature review, TVET requires more investment than general education. In addition, the Quality in-terms of Practicality & Effectiveness also play a significant role in running the TVET programs. Concern of different parties is another crucial issue in TVET program as well. In general the training facilities are prominent instrument in the process of training programs. They are tools through which the training objectives are achieved.

Since one of the major purposes of this study was to find out factors (including availability & adequacy of training materials, practicality & effectiveness of the training programs, Concern of stakeholders & some other problems.

Therefore, the researcher intended to obtain the extent to which the resources are fairly prepared & appropriated to use in the training program. Accordingly, the participants were asked to overview by rating (evaluating) group of training materials according to their connection. To this end, the five point Likert scale type: is used (Very high, High, Medium, Low & Very low) within the following consecutive tables.

Table 5 Availability level of training materials

Rows	Item	Participants	Frequency of responses											
			Very high		High		medium		low		Very low		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
1	• consumable raw materials • machines & equipments & spare parts • hand tools • workshops & project sites • training modules & text books	Regional bureau officials	--	--	1	16.7	4	66.6	1	16.7	--	--	6	100
		College officers	1	8.3	2	16.7	6	50.0	3	25.0	--	--	12	100
		Instructors	1	4.6	2	9.1	15	68.2	3	13.6	1	4.5	22	100
		Trainees	--	--	51	15.5	247	74.8	25	7.60	7	2.1	330	100
		Graduates	--	--	1	5.0	6	30.0	10	50.0	3	15.0	20	100
Total			2	0.51	57	14.66	278	71.23	42	10.77	11	2.83	390	100

Table 5 evaluates items of related training materials to what extent they are available for the training program. As indicated in the table, the participants who had direct or indirect exposure to observe the respective training workshops & materials, showed their opinion accordingly. Therefore, among sample population, 247 (74.8%) of the participant trainees rated the availability of the grouped materials in a medium level while 15 over 22 (68.2%) of the participant instructors rate the availability of the given training materials at the same level. In this regard, due attention is given to the responses of the trainees and the instructors whereby their sample is much more trustworthy in comparison to the other sample of population or participants.

Looking to the totality of vertical direction in the table, 2 (0.51%) rated very high, 57 (14.66%) rated high, whereas 42 (10.77%) rate low level and 11 (2.83%) rated the availability of the material at a very low level.

Four out of six participants from regional bureau officials, six out of twelve participants from the respective college officials, fifteen out of twenty-two participants from the instructors, rate the availability of the training materials at medium level.

As shown in the table, 390 sample populations participated in this category. Out of the whole participants nearly two-third of sample population, meaning, 271 (71.23%) of the given participants rate the availability of the training materials at medium level.

This result is consistent with the information collected through observation by the researcher in the workshops. Some of the materials listed in the table were not fairly available because of un-described reasons. Some other materials also did not give function due to lack of maintenance.

During observation, the researcher realized that especially consumable raw materials, spare parts, some important equipments, training modules and text books were not available at most. Therefore, it is easy business to understand how unavailability or unfair availability of such training materials critically plays affecting role in the training programs.

Table 6 Availability level of safety rules

Rows	Item	Participants	Frequency of responses											
			very high		High		Medium		low		Very low		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
2	Level of : • Fire extinguisher • Poster in words • Deferent signs • Exit profiles • Red cross facility	Regional bureau officials	-	--	1	16.7	2	33.3	3	50.0	--	--	**6**	**100**
		College officers	1	8.3	1	8.3	3	25.0	6	50.0	1	8.3	**12**	**100**
		Instructors	1	4.5	2	9.1	4	18.2	12	54.5	3	13.6	**22**	**100**
		Trainees	-	--	18	5.5	82	24.8	223	67.6	7	2.1	**330**	**100**
		Graduates	-	--	1	5.0	4	20.0	13	65	2	10	**20**	**100**
Total			**2**	**0.51**	**23**	**5.9**	**95**	**24.4**	**257**	**65.9**	**13**	**3.29**	**390**	**100**

As shown in table six above, except for the variations of specific numerical figure for the given level of availability, there is no significant difference between the participants in perceiving the availability of safety rules in all shops.

50% each of, the regional bureau officials & the colleges officers believe that safety rules which are listed in the above table are not fairly available. As indicated there, three over six of regional bureau officials and six over twelve of the respective colleges' officers believe at low level of availability about safety rules.

In spite of differences and similarities across all items in table six, participants' cumulative level of assessment for the availability of safety rules is low. In this concern, among 390 sample society, 257 (65.9%) of the participants rate the availability of safety rules at low level and this number constitutes nearly for 2/3rd of the sample population. As to facilitate conducive & secured working area, especially in the workshops. As a matter of fact, low availability of safety rules may result in un-expected damage (hazard) during training sessions. Therefore, the colleges under this study in particular & other colleges at large should enhance availability of safety rules in the workshops and working areas.

Table 7 Availability level of workshop documents

Rows	Item	Participants	Frequency of responses											
			Very high		High		medium		low		Very low		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
3	Level of : • Mandatory procedures • Process level procedures • Criterion documents • Work instructions • Training schedules	Regional bureau officials	-	--	1	16	3	50	2	33.3	- -	--	**6**	**100**
		College officers	-	--	4	33.3	6	50	2	16.7	-	--	**12**	**100**
		Instructors	2	9.1	5	22.7	11	50	2	9.1	1	4.5	**22**	**100**
		Trainees	1	0.3	49	14.8	180	54.5	96	29.1	4	1.2	**330**	**100**
		Graduates	-	--	2	10	12	60	5	25	1	5	**20**	**100**
Total			**3**	**9.4**	**61**	**15.6**	**211**	**54.1**	**111**	**28.5**	**6**	**1.67**	**390**	**100**

As shown in table 7 it is possible to say that availability level of workshop documents laid in medium level. 5o% of the participants from regional bureau, the colleges' officers & the instructors marked the availability of workshop documents at medium level. Furthermore 54.5% of participant trainees' evaluated availability of workshop documents as if it is medium & nearly the same thing is true with youngster graduates hence, twelve over twenty of them rated at medium level.

From this reality we can conclude that the availability level of workshop document is found at medium level.

With regard to availability of workshop documents, there is no more difference between the participant judgments and check list of the researcher's observation. The researcher, during workshop observation realizes and attempted to understand that the availability of workshops documents falls at medium level.

It is obvious that necessary documents in the workshops can be prepared and used easily through what the training program can smoothly be run. The researcher have seen that Hossana college because of Quality Management System, and Wolkite college also because of the so called Kaizine program, attempted to organize and enhance availability of workshop document in a good manner. Even if that is so, it should sufficiently be prepared in order to avoid affecting role of the middle level TVET program in particular and the whole program in general.

Table 8 Adequacy level of training materials

Rows	Item	Partici-pants	Frequency of responses											
			Very high		High		medium		low		Very low		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
1	Level of : • Consumable raw materials • Machines & equipments • Hand tools • Workshops& project sites • Training modules & text books	Regional bureau officials	--	--	2	33.3	2	33.3	2	33.3	--	--	6	100
		College officers	1	8.3	6	50	1	8.3	4	33.3	--	--	12	100
		Instructors	1	4.5	8	36.4	3	13.6	9	40.9	1	4.5	22	100
		Trainees	13	3.9	25	7.6	105	31.8	180	54.5	7	2.1	330	100
		Graduates	--	--	1	5	6	30	10	50	3	15	20	100
Total			**15**	**3.8**	**42**	**10.8**	**117**	**30**	**205**	**52.6**	**11**	**2.8**	**390**	**100**

In addition to availability of the training materials, safety rules and workshop documents, an adequacy level of the same materials plays significant role in TVET program. To obtain the general picture of the adequacy level of the available materials, the respondents were asked to rate accordingly and in that the above table (table 8) contains their result.

As indicated in the above table, all the respondents rated the adequacy level of the given items (training materials) according to their observation and or actual insights in the respective training workshops. In this regard, 3.8% of the respondent believes the adequacy level of the items as very high, 10.8% of them as high, 30% of them as medium, 52% as low and the rest 2.8% leveled as very low. Anyhow, the average judgments of all the respondents found to be low & that is 52.6% of cumulative rate.

As a result, this implies that to some extent the adequacy level of the training materials tended to be one of the factors which might affect quality of the training program. In addition, it might lead to difficulty in attaining the intended goal of the TVET program.

Table 9 Adequacy level of human resource

Rows	Item	Participants	Frequency of responses											
			Very high		High		medium		low		Very low		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
2	Level of : • Qualifies instructors • Shop assistances • Mediators (councilors • Core & supportive staff	Regional bureau officials	--	--	--	--	2	33.3	4	66.7	--	--	6	100
		College officers	--	--	1	8.3	2	16.7	8	66.7	--	--	12	100
		Instructors	--	--	--	--	9	40.9	13	59	--	--	22	100
		Trainees	--	--	20	6.1	52	15.8	255	77.3	3	0.9	330	100
		Graduates	--	--	2	10	3	15	10	50	5	25	20	100
Total			--	--	**23**	**5.9**	**68**	**17.4**	**290**	**74.4**	**8**	**2.1**	**390**	**100**

Adequacy level of human resource like qualified instructors, shop assistances, councilors, core & supportive process, professionals and the like significantly plays decisive role in running TVET program. Coming to my business, 5.9% of the participants viewed adequacy at high level. 17.4% judged at medium level, while 2.1% of the participants agreed at very low level.

As it is revealed in table 9, all of the respondents agreed that adequacy level of human resource specially qualified instructors is low, because the rating value of cumulative average constitutes for 74.4%. The human resource finding is in harmony with the findings in the characteristics of participants especially related to their qualifications.

As far as human resource is concerned, it is clear that without adequate man power particularly the instructors (trainers), it is unlikely to attain to the objectives of the TVET program. In this regard, it was a bit difficult to find qualified instructors in the skilled man market. As it was discussed & reported in the focus group discussions at the respective colleges, how inadequacy of qualifies man power happens.

As a result of the focus group discussions, the core reason of inadequacy with special attention of instructors, seem to be A) Turnover (resign) of them because of various reasons. B) Difficulty to find and employ qualified instructors. C) Lack of sufficient upgrading opportunity for the instructors at hand. D) Resource scarcity and motivation cases are also among some of the reasons to be treated further as to avoiding affecting factors of the training programs.

Indeed, the researcher has quite official information that the new package for the salary promotion of TVET instructors is planned by the federal ministry of education which will be practical in near future.

Table 10 Adequacy level of financial resource

Rows	Item		Frequency of responses											
			Very high		High		medium		low		Very low		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
3	level of : • Recurrent budget for purchasing materials • Capital budget for purchasing machines & equipments • Budget for incentives & rewards • Budget for field visits & entertainments	Regional bureau officials	--	-	--	- -	1	16.7	2	33.3	3	50	6	100
		College officers	--	-	--	- -	1	8.3	3	25	8	66.7	12	100
		Instructors	--	-	--	- -	2	9.1	5	22.7	15	68.2	22	100
		Total	--	--	--	--	4	10	10	25	26	65	40	100

The items listed in table 10 are the main budget sources allocated by the government to run the training programs. The concerned participants who were invited to measure the state of the budget were the regional bureau officials, college officers and the instructors. Three (50%) of the respondent from regional bureau officials rated the budget at low level while the rest three (50%) decided it at medium and low level.

Eight (66.7%) of the participants among twelve in number rated the budget allocation at a very low level while the rest participants agreed in between medium and low level. The respective instructors took their part, and measured the budget allocation as the following. 15 in number (68.2% of the participants) decided the budget allocation to be at a very low level while 22.7% of them thought at low level and the rest 9.1% assumed as a medium level. In general 26 over 40 sample population (65%) of the participants confirmed that adequacy level of the financial resource is at a very low level. As can be seen from the numerical value of the given table, there is no observable difference between the information of the whole participants.

As far as the financial resource of the colleges is concerned, the focus group discussion conducted with the purposely selected informants has asserted that even-though there is inadequacy of budget resource, the colleges have autonomy over those financial resources.

As clearly been discussed, there are a lot of problems with regard to the provision and facilitations of the materials for the training because of the rules and regulations of the finance and economic development sector in addition to inconvenient purchasing procedures. Indeed, such kind of problems could be realized as one of the factors affecting the training program by creating a delay in obtaining the required materials on time. As mentioned above, this was mainly due to the lengthy purchasing and disbursement procedures. The problem indicated that it is one of the major organizational problems for the colleges that hinder effective utilization of their resources.

In summing-up the issues about the resource adequacy and availability, the respective participants of the regional TVET bureau & the two colleges community who are selected to be an informant of this study, assured on tables, 5,6,7,8 (4 tables) that different training materials like, machines, equipments, raw materials, modules & text books and the like, Safety rules like, fire extinguishers, posters, signs, exit profiles, first aids, red cross marks and the like, Workshop documents like, work instructions, different procedures, criterion documents, schedules and the like, are found to be not only inadequate but also unavailable.

The participant in table 9 and 10, moreover, rated the human resources and financial resources at the same manner. As a matter of fact, insufficient budget allocation originates inadequacies of material resources and in turn, the interdependent problems of budget insufficiency and material inadequacy aggravated affecting role in the training program.

Based on the reality of the information in this regard, we can conclude that the respective colleges under this study and others, in the region, suffering from shortage of material, human and financial resources as it was confirmed by the participants and observation made in the research sittings.

Therefore we can easily understand that how inadequacy and unavailability of training materials and other resources critically plays affecting role not only in the training program but also in the whole TVET system. Hypothetically speaking, this might be due to absence of appropriate planning skills to allocate wisely scarce and expensive resources as sited by (Talersa, 2002).

Table 11 Quality level of academic issues

Rows	Item	Participants	Frequency of responses											
			Very high		High		medium		low		Very low		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
1	Quality of • Curriculum design & development • TTLM production & development • Module design & approach • provision of common courses	Regional bureau officials	--	--	2	33.3	3	50	1	16.7	--	--	6	100
		College officers	1	8.3	3	25	7	58.3	1	8.3	--	--	12	100
		Instructors	1	4.5	2	9.1	8	36.4	7	31.8	4	18.2	22	100
		Trainees	7	2.1	105	31.8	205	62.1	9	2.7	4	1.2	330	100
		Graduates	--	--	1	5	11	55	7	35	1	5	20	100
		Total	**9**	**2.3**	**113**	**30**	**234**	**59**	**25**	**6.4**	**9**	**2.3**	**390**	**100**

As an integral part of the TVET Reforms being pursued by the government of Ethiopia, TVET system is now focused on delivering its services according to labor market demands and industry relevance.

It is important to note that the curriculum design and structure play an important role in realizing this goal. An outcome based curriculum helps to facilitate the learning process in a way that learners can acquire set of competences required at the workplace as defined in the Ethiopian Occupational Standards (EOS).

The same thing is true about the Training-, Teaching- and Learning-Materials (TTLM). All types of materials should be suitable or specifically designed and developed to support occupational learning processes - and thus – it helps to achieve the desired learning outcomes.

Quality level of academic issues such as curriculum design and development, TTLM production and development, module design and its approach and provision of common courses are assessed in this study through questionnaire. We can understood from the most responsible bodies (regional bureau officials, college deans and the instructors) rate of responses that the quality of the listed items (academic issues) found to be medium. In addition, the trainees and the graduates shared the same rate of responses.

As shown in the table 11, 50% of regional bureau officials, 58.3% of college officials, 36.4% of instructors, 62.1% of the trainees, and 55% of the graduates decided the quality of the given items in to medium level. In this regard, the response of some instructors remind us there is an alarming sound, 5o% of the instructors amazingly rated the quality of the listed items below medium level.

Therefore it seems to be advisable to re-amend the given academic issues again and again in order to be quite clear of the case of academic quality as to avoid factors affecting quality of the middle level TVET program in particular and the whole training program at large.

Table 12 Practicality level of academic issues

Rows	Item	Participants	Frequency of responses											
			Very high		High		medium		low		Very low		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
1	Practicality of : • Theoretical part Vs practical training • Units of competences • Outcome based approach	Regional bureau officials	3	50	1	16.7	2	33.3	--	--	--	--	6	100
		College officers	1	8.3	7	58.3	3	25	1	8.3	--	--	12	100
		Instructors	2	9.1	7	31.8	12	54.5	1	4.5	--	--	22	100
		Trainees	25	7.6	103	31.2	180	54.5	22	6.7	--	--	330	100
		Graduates	--	--	3	15	15	75	2	10	--	--	20	100
		Total	**31**	**7.9**	**121**	**31.0**	**212**	**54.4**	**26**	**6.7**	--	--	**390**	**100**

Because of hypothetical reasons, the researcher, so far, planned & selected some of the academic issues to be addressed by the respective participants what level the items listed in table 12 are practical at the middle level training program.

As indicated in the table above, despite slight difference in rating, all the participants viewed the practicality of the listed items at medium level. For example, the same percentile (54.5% each) or the same number of instructors and the trainees had equal decision about the items to be assessed.

Cumulative rate of the five respondent bodies revealed that the practicality of the given academic items found to be quite medium. Hence, 212 over 390 participants in number or 54.4% of the whole informants agreed that the listed items are being practiced in the training program at average standard or at medium level.

Taking the given items of table 12 as some of the component parts of academic quality of the training program, the level of practicality should be enhanced and get progress as to avoid access of affecting the training program.

Table 13 Effectiveness Level of periodic (timely) activities

Rows	Item	Participants	Frequency of responses											
			Very high		High		medium		low		Very low		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
1	Effectiveness of • Cooperative training programs • Labor market assessment system • Gap assessment programs	Regional bureau officials	1	16.7	1	16.7	4	66.7	--	--	--	--	6	100
		College officers	1	8.3	5	41.7	5	41.7	1	8.3	--	--	12	100
		Instructors	1	4.5	7	31.8	12	54.5	2	9.1	--	--	22	100
		Trainees	15	5	77	25.7	176	48.7	49	16.3	13	4.3	330	100
		Graduates	--	--	5	25	13	65	2	10	--	--	20	100
		Total	**18**	**4.6**	**95**	**24.4**	**210**	**53.8**	**54**	**13.8**	**13**	**3.3**	**390**	**100**

The role of periodic activities in the process of TVET program is very essential at which the regular programs are based on and emerged. Among a lot of micro & subsequent programs, the main periodic activities in TVET colleges/institutions are assumed to be gap assessment programs, labor market assessment program, and cooperative training program. In order to find out whether these activities are orderly and timely performed or not, the researcher developed assessment tool (questionnaire) and provided it to the most concerned participants.

Accordingly, 4 of the 6 or (66.7%) respondents from regional TVET bureau, 41.7% of the college officers, 54.5% of instructors, 48.7% of the trainees, and 65% of the graduates placed periodic activities at medium level which resulted in sum total of 53.8% which is dominant rate. On the other hand, 24.4% of them decided to high, and only 4% of them assumed as very high. In contrary, 13.8% of them labeled to low and 3.3% of them rated at very low level.

As far as the items listed in table 13 play a significant role in TVET system, these activities should be performed with in the right time and effort. As a result, the training program in this regard will be prevented from getting fatality.

Table 14 Effectiveness level of different methods & strategies

Rows	Item	Participants	Frequency of responses											
			Very high		High		medium		low		Very low		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
1	Effectiveness of : • Intervention mechanisms • Methods to solve problems • Monitoring methods • Evaluation strategies • Feedback methods	Regional bureau officials	--	--	--	--	2	33.3	4	66.7	--	--	6	100
		College officers	--	--	1	8.3	3	25	7	58.3	1	8.3	12	100
		Instructors	--	--	3	13.6	8	36.4	10	45.5	1	4.5	22	100
		Trainees	--	--	13	3.9	45	13.6	187	56.7	85	25.8	330	100
		Graduates	--	--	2	10	7	35	9	45	2	10	20	100
Total			--	-	**19**	**4.9**	**65**	**16.7**	**217**	**55.6**	**89**	22.8	**390**	**100**

Importance of the items mentioned above on table 14 is unquestioned and that is why the researcher planned and designed to assess these issues in order to found out whether or not they are being operated strongly and fairly, as to avoid affecting factors in this concern. The items provided to the most responsible parties to be addressed through questionnaire are very important aspects of the training program in relation to monitoring, evaluating, intervening, valuing, organizing and reporting to the responsible bodies.

Are really the items strongly and timely performed and/or practiced with in the training program ? ... To what extent or level if so ? ... In responding these questions, all the sample population except the CTPOs, are participated. Accordingly, the sum total of 21.6% or 84 over 390 informants rated the items more than medium, whereas 22.8% or 88 out of the whole participants decided less than medium.

As shown on the respective table, performance level of the items is found to be at the medium level which may remind the audience that the issues related to the training program are not strongly and actively gone ahead of. As far as the items enable the responsible bodies to measure the system, the process and the outcomes of the training program it is must to pay special attention and commitment in order to put the items in to practice as always as possible.

As a matter of fact, the only and most valuable mechanisms through which the leadership, the planners, the instructors, and the respective trainees as well, find out what are the main obstacles, drawbacks, problems, and affecting factors of middle level training program in particular and the whole program in general are the strategic items or categories listed on the table.

Table 15 Level of concerns and/or participations of the stakeholders

Rows	Item	Participants	Frequency of responses											
			Very high		High		medium		low		Very low		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
1	Level of : • Concern & timely participation of stake holders and partners • Regional bureaus' commitment to follow up the college activity periodically • Academic & supportive staff strength to attain overall objectives of the college	Regional bureau officials	1	16.7	4	66.7	1	16.7	--	--	--	--	6	100
		College officers	1	8.3	6	50	3	25	2	16.7	--	--	12	100
		Instructors	2	9.1	10	45.5	9	40.9	1	4.5	--	--	22	100
		Trainees	--	--	--	--	--	--	--	--	--	--	--	--
Total			4	10	20	54.1	13	32.5	3	7.5	--	--	40	100

Effective implementation, rigorous activities and intended outcomes requires sense of responsibility & accountability of the concerned bodies, well organized participation of the stakeholders, and the partners as well. In this regard, the researcher, so far, planned to found out whether the items intended to be addressed by the respective participants are normally, regularly/timely and actively performed or not. The concern and alert participation of stakeholders & the partners is assumed to be the defensive wall in running the training program.

As shown in the table, level of concern and/or participation of stakeholders such as regional bureau, the surrounding community, the government bodies, academic &

supportive staff of the colleges found to be slightly high with 54.1% cumulative average. From this, regional bureau participants share 66.7%, the colleges' officers shared 5o% and the instructors took 45.5%. It is clear that concerns and participations of the stakeholders play a significant role not only in the training program but also in the progress of the system. Therefore, to work hard in order to promote stakeholders' participation should be usual assignment for the TVET colleges/institutions.

Table 16 Level of other problems

Rows	Item	Participants	Frequency of responses											
			Very high		High		medium		low		Very low		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
1	Problems related to • Instructors' turn over • Trainees' drop out • Disciplinary problems	Regional bureau officials	1	16.7	3	50	2	33.3	--	--	--	--	6	100
		College officials	4	33.3	5	41.7	2	16.7	1	8.3	--	--	12	100
		Instructors	10	45.5	11	50	1	4.5	--	--	--	--	22	100
		Trainees	41	12.4	150	45.5	130	39.4	9	2.7	--	--	330	100
		Graduates	4	20	12	60	3	15	1	5	--	--	20	100
		Total	**60**	**15.4**	**181**	**46.4**	**138**	**35.4**	**11**	**2.8**	**--**	**--**	**390**	**100**

Among many of the problems related to the training program, the items which are listed in the given table seem to be clear ones to what this study focused on. The participants, according to their opinion, treated them by means of the questionnaire. In this regard, 50% (each) of the regional bureau officials and the instructors rated the problems at high level while 41.7% of college officers and 45.5% of the trainees decided the same level. 12 over 20 or 6o% of the graduates also said the same thing.

According to these figures, the degree of the problems (items) is found to be high with cumulative average of 46.4%, rated by the sum total of 181 participants out of the sample population. Therefore, the rated level indicated that problems described under the given table played affecting role over the training program and the whole system.

Table 17 Placement (streaming) of prospective trainees

N	Items	Alternative responses	Respondents									
			Graduates		Trainees		Instructors		College officers		Total	
			N	%	N	%	N	%	N	%	N	%
1	Whether or not the prospective trainees decide to join TVET	Yes	5	25	78	23.6	--	--	--	--	83	23.7
		No	15	75	252	76.4	--	--	--	--	267	76.3
		Total	**20**	**100**	**330**	**100**	--	--	--	--	**350**	**100**
2	If the dominant response is, «No», which one of the options motivated them to join TVET program.	Less scores at grade 10 examination.	13	65	237	71.8	12	54.5	7	58.3	**269**	**70.1**
		Family enforcement.	2	10	10	3.0	--	--	1	8.3	**13**	**3.4**
		Need of vocation.	1	5	20	6.1	4	18.2	3	25	**28**	**7.3**
		Good information about TVET program	3	15	54	16.7	5	22.7	1	8.2	**63**	**16.4**
		Influence of peers.	1	5	9	2.7	1	4.5	--	--	**11**	**2.7**
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**384**	**100**
3	Whether the placement of trainees is made by one of the following parties.	Direct assignment of the college	3	15	48	14.5	4	18.2	2	16.7	**57**	**14.8**
		Partial assignment of the college	12	60	247	74.8	10	45.5	6	50	**275**	**71.6**
		Full interest of the trainees.	5	25	35	10.6	8	36.4	4	33.3	**52**	**13.5**
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**384**	**100**

Table 17 presents opinions of the participants in relation to placement and streaming of the trainees. In response to the item one (267) or 76.3 % of the trainees & recently graduated youngsters indicated that they didn't decide to join TVET during their completion of grade 10 whereas only (83) 23.7 % of trainees and graduates revealed that they decided to join TVET during completion of grade 10. We can infer from this that more than $2/3^{rd}$ of the participants in this category did not decide to join TVET program after completion of grade 10 but they are here in the TVET now.

Item two of the same table discusses corresponding question with the former item. It asks for the reason what motivates them to come to the TVET program where they did not planned to do so during completion of grade 10. In this item, four different categories of informants are participated. Hence, the trainees, the graduates, the instructors and the college officers.

Accordingly, the sum total of (269) 70.1% participants revealed out the reason that enforced the trainees to join TVET program and the possible reason is found to be less scores in grade 10 national examination which was hindered them from getting to the preparatory program or other chance.

The rest 29.9% of the participants, according to their information, join TVET program because of some reasons such as, vocational need, good information about TVET, and influences of peer groups and the like.

Coming to the placement (streaming) of the trainees, in item 3 of the given table, regarding the body by which it was being made. Regarding this 14.8% of the sample population caused that the placement (streaming) was being made by the direct assignment of the college. 13.5% of the participants said as wan being made by the full interest of the trainees. 71.6% of the participants informed that the placement (streaming) was being made by the partial assignment of the college and this response most probably seems to be the governing one about the placement (streaming) of the trainees. In contrast to the information found out by majority of the participants practically, Ethiopian TVET strategy (1995:12) describes that students who have interest & inclinations for skill training will be placed in TVET institutions after completing the secondary education that is grade 10.

In contrary to the declaration of TVET strategy, potential factor affecting our TVET programs starts with the trends we employ in placement & streaming of prospective trainees. The major problem in matching the trainees with fields of study is the gap in identifying the need & interests of the trainee's accordingly. Therefore, the trainees should be placed and streamed with proper assessment of their needs/interests rather than taking part of choosing field of study on behalf of the trainees.

In reality, it is also the right of the individual to determine his future destiny, therefore any activity of placing and streaming students in any field of training, there are several questions that need to be answered in relation to their need, interest, and personality behaviors.

Table 18 Level of trainees' interest towards their fields of study

N	Items	Alternative responses	Respondents							
			Trainees		Instructors		College officers		Total	
			N	%	N	%	N	%	N	%
1	Trainees level of interest about the field they are attending now.	Very high	12	3.6	5	22.7	1	8.3	18	4.9
		High	203	61.5	9	40.9	5	41.7	217	59.6
		Medium	98	29.7	6	27.3	4	33.3	108	29.7
		Low	15	4.5	2	9.1	2	16.7	19	5.2
		Very low	2	0.6	--	--	--	--	2	0.6
		Total	**330**	**100**	**22**	**100**	**12**	**100**	**364**	**100**

The 1st item of the above table presents trainees' level of interest about the fields they are attending currently. As shown in the table, cumulative average rate fallen at high level which was contributed by (217) 59.6% of participants Whereas (108) 29.7% of teem rated medium. The rest few number of the participants decided the items to be very high, low and very low. In table 17 of item 3 above the placement (streaming) of the trainees was made by partial assignment of the college by which the interest of the trainees' is assumed to be demoted.

By any means the result of these two items seemed to be conflicting with each other. But by reality the degree of the students interest was rated at high level probably because of the eagerness or curiosity of getting (generating) income for themselves. The literature review described on page 57-58 that the demand of a 10th grade complete young boy/girl (the trainee) for job is very high.

By simply looking at this fact, one may conclude that the youth will not only be willing to accept any type of skill training during placement (streaming) but also develop interest towards his field of study as a result of eagerness for getting job within a short time because of the poverty he had.

In order to make the trainees to attain their field of study (skill training) interest-fully, the natural and normal way is to identify the need & interests of the trainee's. In addition, the interest of the trainees to be high towards their fields of study could be due to the government policy to encourage TVET graduates to be employed or make their own business being supported by getting loan from government finance sectors.

Table 19 Instructors' interest to work (not to work) in TVET institutions/colleges

N	Items	Alternative responses	Respondents									
			Trainees		Instructors		College officers		Regional bureau officials		Total	
			N	%	N	%	N	%	N	%	N	%
1	Instructors have a good interest to work at TVET colleges	Yes	145	43.9	8	36.4	5	41.7	3	50	**161**	**43.5**
		No	185	56.1	14	63.6	7	58.3	3	50	**209**	**56.5**
		Total	**330**	**100**	**22**	**100**	**12**	**100**	**6**	**100**	**370**	**100**
2	If the dominant response, is «No», what are the major reasons ?	Non conducive working environ	12	3.6	2	9.1	--	--	--	--	**14**	**3.8**
		Boring, uncontro lable & tedious work	--	--	--	--	--	--	--	--	--	--
		Low social status given to TVET by the public	17	5.2	2	9.1	3	25	1	16.7	**23**	**6.2**
		Limited oppor-tunity for future education or trainings.	34	10.3	3	13.6	1	8.3	1	16.7	**39**	**10.5**
		Low salary, de-motivation, lack of incentives	87	26.4	6	27.3	4	33.3	2	33.3	**99**	**26.8**
		All, even the degree varies	180	54.5	9	40.9	4	33.3	2	33.3	195	52.7

Table 19 presents two items which are related to the interest of the instructors to work at TVET colleges and the reason to what they responded. Regarding the instructors' interest to work in TVET colleges, 43.5% of the respective participants judged positively while 56.5% of them decided the opposite. In comparison, sense of dilemma is realized in identifying the interest of instructors in which the closeness of the participants information is too narrow with only 56.5-43.5=13%. This result urged the researcher to think of the information he had about the salary promotion of TVET instructors which was planned to be practical in near future. Thus, the instructors might disclose emphatic interest restoration because of the information announced by the government. Then, this could be the possible reason for the competitive response (percentile) filled by the respondents.

Coming to the 2nd item of the table, It is found that a bit dominant value shown is a weak interest of the instructors to work at TVET colleges. The possible reason confirmed for disinterest of the instructors found to be problems related to motivations, low salary, lack of incentives and the like. As far as salary question is concerned, the researcher has reliable information that the problem will be treated some months later.

Table 20 State of in-service training chance for the instructors

N	Items		Respondents							
			Instructors		College officers		Regional bureau officials		Total	
			N	%	N	%	N	%	N	%
1	Whether the instructors joined in-service training to upgrade their qualifications	Yes	22	100	12	100	6	100	40	100
		No	--	--	--	--	--	--	--	--
		Total	**22**	**100**	**12**	**100**	**6**	**100**	**40**	**100**
2	Possible percentage of the instructors joined in-service training	Up to 25%	2	9.1	1	8.3	1	16.7	4	10
		26-50%	11	50	6	50	3	50	20	5
		51-75%	5	22.7	3	25	2	33.3	10	25
		76-100%	4	18.2	2	16.7	--	--	6	15
		Total	**22**	**100**	**12**	**100**	**6**	**100**	**40**	**100**
3	Whether the instructors have taken pedagogical training.	Yes	**22**	**100**	**12**	**100**	**6**	**100**	**40**	**100**
		No	--	--	--	--	--	--	--	--
		Total	**22**	**100**	**12**	**100**	**6**	**100**	**40**	**100**
4	Possible percentage of the instructors obtained pedagogical trainings.	25-50%	--	--	--	--	--	--	--	--
		50- 75%	4	18.2	2	16.7	--	--	6	15
		75-100%	18	81.8	10	83.3	6	100	34	85
		Total	**22**	**100**	**12**	**100**	**6**	**100**	**40**	**100**

Table 20 provides In-service training program provided to the instructors. As shown in item one of the given table, the instructors had a chance of getting to higher colleges to upgrade their qualification. In this regard, 22.7% of instructors, 25% of college officers, and 33.3% of the regional bureau officials believed that approximately 51-75% of the respective instructors joined in-service trainings to upgrade their qualifications.

The sum total of 10% of the participant assumed up to 25% chance, the sum total of 5% of participants agreed on 26-50%, the sum total of 15% of the participants decided 76-100%. According to the information of all of the participants almost all of the instructors have taken pedagogical trainings which might enable them to apply training methodology in the workshops and project sites.

Percentage of the instructors, who has taken pedagogical training, is 75-100% as guessed revealed by the sum total of (34) 85% of the participant. The rest 15% of the sample population assumed the chance of pedagogical training for the instructors between 50-75%. In general, chance given to the instructors to join pedagogical training seems to be very good, which might fill the gap of methodological inconveniences during training session.

Table 21 Trainees' Level of Competence

N	Items	Alternative responses	Respondents									
			Trainees		Instructors		College officers		Graduates		Total	
			N	%	N	%	N	%	N	%	N	%
1	Trainees' level of competence	Above satisfactory	40	12.1	3	13.6	1	8.3	4	20	**48**	**12.5**
		Satisfactory	195	59.1	13	59.1	8	66.7	9	45	**225**	**58.6**
		Below satisfactory	95	28.8	5	22.7	3	25	7	35	**110**	**28.6**
		unsatisfactory	--	--	1	4.6	--	--	--	--	**1**	**0.3**
		Total	**330**	**100**	**22**	**100**	**12**	**100**	**20**	**100**	**384**	**100**
2	Readiness & capacity of the college to assess & fill the gaps of trainees' competence (if any)	Above satisfactory	--		--		1	8.3	--	--	**1**	**0.3**
		Satisfactory	115	34.9	5	22.7	3	25	8	40	**131**	**34.1**
		Below satisfactory	178	53.9	10	45.5	6	50	10	50	**204**	**53.1**
		Unsatisfactory	37	11.2	7	31.8	2	16.7	2	10	**48**	**12.5**
		Total	**330**	**100**	**22**	**100**	**12**	**100**	**20**	**100**	**384**	**100**

As indicated in item one of table 21, (195) 59.1% of the trainees shared the feeling that their level of competence in the field they are attending is satisfactory. About (95) 28.8% of their batch asserted their level of competence as it is below satisfactory and the others (40) 12.1% accepted their competence as above satisfactory. (13) 59.1% of the instructors, 8 (66.7%) college officials, 9 (45%) graduates also confirm the feeling shared by the majority of the trainees. assuming the trainee's level of competence is satisfactory. As far as the item is concerned, the sum total of (225) 58.6% sample population measured level of the trainees competence is found to be satisfactory while considerable number (110) 28.6% of participants judged that level of the trainees competence is below satisfactory. Number of participants contributed for above high is equal to (48) 12.5%.

The responses of majority of the participants might made the reader of this thesis about the respective trainees. Sometimes later (after completion of their trainings) they are expected to become competent in the labor market to sell them-selves or to open their own businesses. But in reality the research informants might be biased or inappropriate in responding the questionnaire. Repeatedly conducted observation also showed a certain clue about the trainees' level of competence. It is doubtful to believe that a trainee with inadequate provision of resources can perform well in the training process and can be competent in the labor market where practical implementation of the skill

developed actually takes place. Their current level of competence of the trainee's in-fact might charge hot passion up on the respective college, the instructors, the stakeholders and even the trainees themselves in order to re-promote their competences working as exhaustively as possible.

The rationality of the responses of the participants, on the other hand, a little bit doubted the researcher because the informants might assume (undermine) the trainees' skill as if it is not satisfactory according to their expectations to be so now and tomorrow. Anyhow, the most reality in relation to trainees' competence will be assured by means of assessment center of competence (CoC).

Table 22 Instructors' Level of Competence

N	Items	Alternative responses	Respondents											
			Graduates		Trainees		Instructors		College officers		Regional Bureau officials		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
1	Instructors' level of competence	Above satisfactory	10	50	162	49.1	15	68.2	8	66.7	4	66.7	**199**	**51.0**
		Satisfactory	8	40	138	41.8	7	31.8	3	25	2	33.3	**158**	**40.5**
		Below satisfactory	2	10	27	8.2	--	--	1	8.3	--	--	**30**	**7.7**
		unsatisfacto	--	--	3	0.9	--	--	--	--	--	--	**3**	**0.8**
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**6**	**100**	**390**	**100**
2	Readiness of the college to assess & fill the gaps of Instructors' competence(if any)	Above satisfactory	--	--	--	--	3	13.6	1	8.3	1	16.7	**5**	**12.5**
		Satisfactory	--	--	--	--	12	54.6	8	66.7	4	66.6	**24**	**60**
		Below satisfactory	--	--	--	--	7	31.8	3	25	1	16.7	**11**	**27.5**
		Unsatisfactory	--	--	--	--	--	--	--	--	--	--	--	--
		Total	--	--	--	--	**22**	**100**	**12**	**100**	**6**	**100**	**40**	**100**

Instructor's level of competence was examined in order to assess, how they are providing the training, to what extent their competence is, the instructors have skill gap or not, at what state the quality training is, and the like. It is presumed that the quality of a training program will, to a large extent, depend in the academic and/or professional qualification and competence level of the academic staff, extent and relevance of training they had and their work experience.

Based on this premise, instructors, trainees, graduates, college officers, and regional bureau officials have been participant and results are found out as following. 10 (50%) of graduates, 162 (49.1%) of the trainees, 15 (68.2%) of the instructors, 8 (66.7% each)

of the college officers and regional bureau officials the sum total of 199 out of 390 which constitutes for 51% sample population judged instructors' level of competence at above satisfactory. Beside this, considerable number of participants from all category (the sum total of 158 (40.5%) participants explained level of the instructors' competence at satisfactory.

Based on this finding one can imagine that the instructors' level of competence is encouraging and that in turn shows a strong attempt of the government, the colleges and the instructors themselves as planned in the TVET strategy particularly about qualification frame work of the TVET program. The table further shows that, 24 over 40 (60%) the sum total of concerned participants (the instructors, the college officers and the regional bureau officials) agreed the readiness and capacity of the respective colleges to assess and fill the gaps of competence of the instructors' through what skill gaps of the instructors were treated timely and eventually.

Table 23 Instructors' method of approach & commitment during training

N	Items	Alternative responses	Respondents									
			Graduates		Trainees		Instructors		College officers		Total	
			N	%	N	%	N	%	N	%	N	%
1	The instructors are always committed to the training they are providing.	Strongly agree	2	10	7	2.1	2	9.1	--	--	11	2.7
		Agree	3	15	87	26.4	12	54.5	4	33.3	106	27.6
		Disagree	11	55	162	49.1	8	36.4	6	50	187	48.7
		Strongly disagree	4	20	74	22.4	--	--	2	16.7	80	20.8
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	384	100
2	Most of the time the instructors prefer to use local language (Amharic) when elaborating the training activities	Strongly agree	12	60	225	68.2	9	40.9	9	75	255	66.4
		Agree	7	35	86	26.1	9	40.9	3	25	105	27.3
		Disagree	1	5	19	5.8	4	18.2	--	--	24	6.25
		Strongly disagree	--	--	--	--	--	--	--	--	--	--
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	384	100
3	Instructors devote most of the training time to theory than practical training.	Strongly agree	--	--	4	1.2	--	--	--	--	4	1.0
		Agree	5	25	123	37.3	2	9.1	3	25	133	34.6
		Disagree	13	65	155	47	13	59.1	7	58.3	188	49
		Strongly disagree	2	10	48	14.5	7	31.8	2	16.7	59	15.4
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	384	100

4	The instructors usually do not feel comfortable (lack confidence) in conveying training.	Strongly agree	--	--	11	3.3	--	--	--	--	11	2.9
		Agree	5	25	40	12.1	3	13.7	3	25	51	13.3
		Disagree	10	50	205	62.1	14	63.6	6	50	235	61.2
		Strongly disagree	5	25	74	22.4	5	22.7	3	25	87	22.7
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**384**	**100**
5	The Instructors usually encourage the trainees to ask questions & provide immediate feedbacks.	Strongly agree	2	10	12	3.6	8	36.4	--	--	24	6.25
		Agree	2	10	28	8.5	7	31.8	4	33.3	41	10.7
		Disagree	6	30	130	39.4	6	27.3	7	58.3	149	38.8
		Strongly disagree	10	50	158	47.9	1	4.5	1	8.3	170	44.3
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**384**	**100**

Table 23 presented five items which are related to the instructors' method of approach & commitment during trainings. With regard to item 1 of the table, (11) 2.7% of the whole participants have a strong agreement about the instructors' commitment to the training they are providing. (106) 27.6% revealed normal agreement upon the item while (187) 48.7% of the whole participants showed disagreement about the instructors commitment. Lastly 80 (20%) of the respondents accounted a strong disagreement. The dominant frequency of responses is that of 187 (48.7%) out of the whole sample population, in that commitment of the instructors to the training they provided called for disagreement.

The second item of the given table provided language that is being practiced when elaborating the training activities. In response to this item, a strong agreement is recorded. (255) 66.4% of the whole participants are strongly agreed of speaking local language during trainings. (129) 33.55% showed normal agreement and disagreement. Observations of the workshops and project sites' Responses of the participants assured the possible findings of the research in relation to the language use ability. In fact to speak within local language might pay a bit advantage in avoiding communication barrier between the instructors and the trainees. Even if that is so, it is not advisable to speak local language in college level, because the terminologies could not be interpreted directly, it might create in-confidence on instructors, it might affect diversification, individual differences & psychological make-ups of the trainees, and the like.

Table 24 Feasibility of the training program

N	Items	Alternative responses	Respondents											
			Graduates		Trainees		Instructors		College officers		Regional Bureau officials		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
1	The extent that the theory & the practical trainings are properly corresponded	Very high	1	5	5	1.5	1	4.5	--	--	--	--	7	1.8
		High	2	10	68	20.6	7	31.8	4	33.3	1	16.7	82	21.0
		Medium	11	55	179	54.2	8	36.4	6	50	3	50	207	53.1
		Low	6	30	73	22.1	6	27.3	2	16.7	2	33.3	89	22.8
		Very low	--	--	5	1.5	--	--	--	--	--	--	5	1.3
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**6**	**100**	**390**	**100**
2	The extent that the knowledge & skills the trainees acquired is sufficient to be competent in the world of work.	Very high	1	5	11	3.3	--	--	--	--	--	--	12	3.1
		High	2	10	68	20.6	8	36.4	4	33.3	2	33.3	84	21.5
		Medium	12	60	169	51.2	10	45.5	7	58.3	3	50	201	51.1
		Low	5	25	75	22.7	4	18.2	1	8.3	1	16.7	86	22.1
		Very low	--	--	7	2.1	--	--	--	--	--	--	7	1.8
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**6**	**100**	**390**	**100**
3	The extent that the competence has been provided within the middle level program is relevant to the world of work.	Very high	1	5	7	2.1	1	4.5	--	--	1	16.7	10	2.6
		High	5	25	69	20.9	4	18.2	4	33.3	2	33.3	84	21.5
		Medium	11	55	175	53	13	59.1	6	50	3	50	208	53.3
		Low	3	15	72	21.8	3	13.6	2	16.7	--	--	80	20.5
		Very low	--	--	7	2.1	1	4.5	--	--	--	--	8	2.1
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**6**	**100**	**390**	**100**

Three items which are related to the title of the table are presented in table 24. Item one of the table disclosed the extent that the theory & practical trainings are appropriately corresponded in the way they are interconnected in the training program. The feasibility of 30 to 70 training program, according to the sum total of sample population, is found to be medium by the decision of 207 (53.1%) participants. Out of this, graduates shared 11/20, trainees took 179/330, instructors sounded 8/22, college officers obtained 6/12, and the regional officials shared 3/6 respectively and partly. As believed by the participants, feasibility of the theory and practical part of the training needs great progress to makeup it to the maximum (very high) level.

Coming to the 2nd item of the given table, the query is related to the extent to which the knowledge and skill the trainees acquired is sufficient to be competent in the world of work. In this regard, The dominant level of feasibility is found to be medium according to the belief of 12 (60%) graduates, 169 (51.2%) trainees, 10 (45.5%) instructors, 7 (58.3%) college officials and 3 (50%) regional bureau officials.

On the other hand, 12 (3.1%) of very high level, 84 (21.5%) of high level, 86 (22.1%) of low level and 7 (1.8%) of very low feasibility level is registered by the participants. As far as this item is very crucial issue of the training program, any and every accesses/opportunities should be attempted in order to enhance the trainees knowledge and skill of being competent in the world of work.

Item 3 of the table, intended to detect the competences that have been provided to the trainees in the program, whether or not, are relevant to the world of work. As it shown from the participants judgments, the relevance between the competences given to the trainees and the world of work is found to be medium. In this category, 11 (55%) of graduates level of rating, 175 (53%) of trainees level of rating, 13 (59.1%) of instructors level of rating, 6 (50%) of college officers level of rating, and 3 (50%) of regional bureau official level of ratings are realized. The rest 10 (2.6%) of the very high level of rating, 84 (21.5%) of the high level of rating, 80 (20.5%) of the low level of rating and 8 (2.1%) of the very low level of ratings are obtained by the respective participants.

Finally, from the above information forwarded by the all participants, we can infer that feasibility of the training program under the given items found to be medium. Therefore, the research audience or the respective colleges have to work hard as to make up, promote and sustain feasibility of the training programs in terms of skill trades, competences and different fields as well.

Table 25 State of workshops facilities

N	Items	Alternative responses	Respondents											
			Graduates		Trainees		Instructors		College officers		Regional Bureau officials		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
1	Instructor' & trainees' desire & expertise to maintain & operate training machines	Above satisfactory	--	--	--	--	1	4.5	--	--	--	--	1	0.2
		Satisfactory	3	15	21	6.4	6	27.3	2	16.7	1	16.7	33	8.5
		Below satisfactory	12	60	185	56.1	12	54.5	7	58.3	3	50	219	56.2
		Unsatisfactory	5	25	124	37.6	3	13.6	3	25	2	33.3	137	35.1
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**6**	**100**	**390**	**100**
2	State of frequently & timely machine maintenance in order to prevent staying idle	Above satisfactory	--		--		--	--	--	--	--	--	--	--
		Satisfactory	3	15	28	8.5	3	13.6	1	63.6	9	75	3	9.2
		Below satisfactory	13	65	182	55.2	14			22.7	2	16.6	2	56.7
		Unsatisfactory	4	20	120	36.4	5					33.3	133	34.1
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**6**	**100**	**390**	**100**
3	Uninterrupted supply of electric power	Above satisfactory	--	--	--	--	--	--	--	--	--	--	--	--
		Satisfactory	3	15	35	10.6	4	18.2	2	16.7	3	50	47	12.1
		Below satisfactory	12	60	250	75.8	13	59.1	7	58.3	2	33.3	284	72.8
		Unsatisfactory	5	25	45	13.6	5	22.7	3	25	1	16.7	59	15.1
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**6**	**100**	**390**	**100**
4	Technological up-to-datedness of machines &equipments	Above satisfactory	2	10	25	7.6	--	--	--		--	--	27	6.9
		Satisfactory	14	70	247	74.8	15	68.2	9	75	4	66.7	289	74.1
		Below satisfactory	4	20	58	17.6	7	31.8	3	25	2	33.3	74	19
		Unsatisfactory	--	--	--	--	--	--	--	--	--	--	--	--
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**6**	**100**	**390**	**100**

Within the table 25 five, five interdependent items are provided to the respondents who are categorized in to five classifications, (the graduates, trainees, instructors, college officers and regional bureau officials). Item 1 call for instructors & trainees desire and expertise to maintain and/or operate training machines.

In responding this question, among all participants, 1 (0.2%) of them sensed "above satisfactory", 33 (8.5%) assumed "satisfactory", 219 (56.2%) respondents marked "below satisfactory", 137 (35.1%) of them replied "unsatisfactory". Even-though the competence level of the trainees in table 21 is "satisfactory" and the instructors' level of competence in their field of qualification or academic skill is "above satisfactory" in table 22, but here according to their skill to maintain machines tended to be paradoxically contradicting.

In-fact, during the observations the researcher realized that some of the training machines were stayed idle in some workshops due to the problems related to maintenance. Therefore, the result of the responses implied that there were skill gaps of maintaining machines on the part of instructors and the trainees as well.

Item 2 of the same table asked for the attempt of the colleges to maintain machines by other operators or experts timely and frequently in order to prevent machines from staying idle. In this regard, 36 (9.2%) of the participants accepted level of "satisfactory", 221 (56.7%) of them decided "below satisfactory", and 133 (34.1%) of the whole informants confirmed "unsatisfactory" level. Firmly speaking, the state of the colleges to do so is found to be "below satisfactory". As a matter of treating the problem in order to get ready the machineries for the training, the colleges have to pay due commitment accordingly.

The 3rd item intended to detect whether or not and to what extent the electric power interrupted the training program especially the practical performance which could not be done other than electric power. Uninterrupted supply of electric power, according to 47 (12.1%) participants is "satisfactory" while 284 (72.8%) of the participants perceived that uninterrupted power supply is below satisfactory. 59 (15.1%) of the participants argue for uninterrupted electric power supply to unsatisfactory. It is clear that anyone can understand that the training program can easily be affected in the absence of an adequate power source. Even though the shortage of electric power supply is national problem, the respective colleges are expected to search for another and additional power generations.

The 4th item of the given table goes to technological up-to-datedness of machines & equipments. In relation to this item, 27 (6.9%) of the participants believe that machined and equipments found in those colleges under this study are technologically up-to-dated. The dominant level of rating here is satisfactory which constitutes for 289 (74.1%) of the participants. The rest 74 (19%) rated below satisfactory. The researcher at the time of observations realized that training machines found especially in general mechanics, wood work, furniture making workshops are sophisticated, up-to-dated and are technological. It is believed that the machineries, if they have been used properly and appropriately, enable the trainees so skill-full in joining the world of work.

Table 26 Aspect of need assessment & labor market information system (LMIS)

N	Items	Alternative responses	Respondents											
			Graduates		Trainees		Instructors		College officers		Regional Bureau officials		Total	
			N	%	N	%	N	%	N	%	N	%	N	%
1	Whether the TVET bureau conduct training need assessment.	Yes	--	--	--	--	20	90.9	11	91.7	6	100	37	92.5
		No	--	--	--	--	2	9.1	1	8.3	--	--	3	7.5
		Total	--	--	--	--	**22**	**100**	**12**	**100**	**6**	**100**	**40**	**100**
2	Whether the college conduct need assessment	Yes	--	--	--	--	22	100	12	100	6	100	**40**	**100**
		No	--	--	--	--	--	--	--	--	--	--	--	--
		Total	--	--	--	--	**22**	**100**	**12**	**100**	**6**	**100**	**40**	**100**
3	If «Yes» is the dominant response, for item 2&3, how often ?	Every semester	--	--	--	--	--	--	--	--	--	--	--	--
		Every year	--	--	--	--	22	100	12	100	6	100	**40**	**100**
		Every two year	--	--	--	--	--	--	--	--	--	--	--	--
		Total	--	--	--	--	**22**	**100**	**12**	**100**	**6**	**100**	**40**	**100**
4	Possible ways used to obtain labor market information.	Labor market monitoring	--	--	--	--	1	4.5	--	--	--	--	1	2.5
		Tracer study	--	--	--	--	4	18.2	3	25	1	16.7	8	20
		Sector based assessment	--	--	--	--	15	68.2	8	66.7	5	83.3	28	70
		All are employed	--	--	--	--	2	9.1	1	8.3	--	--	3	7.5
		Total	--	--	--	--	**22**	**100**	**12**	**100**	**6**	**100**	**40**	**100**

Table 26 attempted to assess four items related to need assessment and labor market information system. The concerned participants in this part are the instructors, college officers and the regional bureau officials. The 1st and 2nd items needed to know whether or not the regional bureau and/or the respective colleges conducted need assessment. Majority of the participants (37 = 92.5%) for the regional bureau and 40 (100%) for the respective colleges understand that need assessment and labor market information system were conducted by both bodies.

In this part the "No" response for regional bureau official received 3 (7.5%) of the participants while nothing "No" for the college officers. According to the TVET strategy it was a good business to assess need of the trainees and labor market conditions by the colleges and the regional TVET bureau before actual training takes place. It is very clear that any governmental and nongovernmental TVET institutes cannot start training program without assessing training need of the labor market and the trainees as well.

When we come to the 3rd item of the table we find a question asked to know frequency of the time the two bodies carried out need assessment & labor market information. In this regard, 40 (100%) of the respective participants had clear understanding that the two bodies conducted the issues once a year or every year before the actual training.

As understood during the focus group discussion, the two bodies (the colleges and the regional TVET bureau) conducted the assessment in order to identify which field of study was to be opened in the training year. The frequency of assessment might be varied from those levels which were not included in this study.

Item 4 of the same table asked for the possible ways used by the concerned bodies to obtain need assessment and labor market information. According to the majority of the participants, sector based assessment is found to be the relevant way of performing the duty. The way and the place where need assessment is carried out focused at especially governmental sectors or organizations.

As a matter of fact, assessing need of the labor market and the desire of the trainee is very important for multipurpose functions like placement (streaming) and for the purpose of employment opportunity.

Table 27 State of cooperative training

N	Items	Alternative responses	Respondents									
			Graduates		Trainees		Instructors		College officers		Total	
			N	%	N	%	N	%	N	%	N	%
1	What are the possible problems or affecting factors regarding cooperative training ?	The CTPOs do not have sufficient resource	4	20	88	26.7	10	45.5	5	41.7	107	**27.9**
		Restrictions to the trainees about performing on machines tools during cooperative training	13	65	207	62.7	9	40.9	4	33.3	233	**60.7**
		Weak mechanism to follow	3	15	28	8.5	1	4.5	1	8.3	33	**8.6**
		Inappropriateness of the cooperative training with their field of study	--	--	7	2.1	2	9.1	2	16.7	11	**2.9**
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**384**	**100**
2	Willingness & practical application of CTPOs in assigning the trainees directly related to the major field & study	Very high	--	--	5	1.5	--	--	--		5	**1.3**
		High	1	5	18	5.5	1	4.5	1	8.3	21	**5.3**
		Medium	9	45	94	28.5	6	27.3	6	50	115	**29.9**
		Low	8	40	143	43.3	11	50	3	25	165	**43.0**
		Very low	2	10	70	21.2	4	18.2	2	16.7	78	**20.3**
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**384**	**100**
3	Adequacy & quality of cooperative training program to prepare trainees for self employ	Very high	3	15	60	18.2	3	13.6	1	8.3	67	**17.4**
		High	10	50	165	50	12	54.5	8	66.7	195	**50.8**
		Medium	6	30	100	30.3	6	27.3	2	16.7	114	**29.7**
		Low	1	5	5	1.5	1	4.5	1	8.3	8	**2.1**
		Very low	--	--	--	--	--	--	--	--	--	--
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**384**	**100**
4	The extent that the trainees get necessary information on kinds & nature of training fields corre-sponding employment beforehand.	Very high	--	--	--	--	--	--	--	--	--	--
		High	2	10	10	3.0	1	4.5	1	8.3	**14**	**3.6**
		Medium	9	45	140	42.4	8	36.4	3	25	**160**	**41.7**
		Low	9	45	172	52.2	12	54.5	7	58.3	**200**	**52.1**
		Very low	--	--	8	2.4	1	4.5	2	16.7	**11**	**2.9**
		Total	**20**	**100**	**330**	**100**	**22**	**100**	**12**	**100**	**384**	**100**

Table 27 attempted to treat factors affecting the training program through the given three items. The 1st item goes to general problems that the CTPOs had in relation to the cooperative training. Regarding this item, some three alternative questions are given the respective participants. Therefore, 107 (27.9%) of the participants related the problem with insufficient resource that the CTPOs had in-order not play a good role in their part.

233 (60.7%) of the dominant participants connected the problem with restrictions made by the CTPOs upon the trainees in order not to provide machines & tools during cooperative training. The other 33 (8.6%) of the informants assumed that the problem is related to weak mechanisms to follow-up the trainees at the time of practical training. The rest 11 (2.9%) of the respondents agreed that the problems are due to inappropriateness of the cooperative training with their field of study.

As indicated in the table, the dominant reason of the problem related to the cooperative training remind us that the CTPOs might be restricted from providing necessary materials to the trainees because of a) Wastage of material b) Frustration about their resource (materials) in order to prevent from damages. c) Suspicion of the less work quality done by the trainees. As to treat these problems, the colleges and other concerned bodies should attempt what is desired to see strong activity in this regard.

The 2nd item asked for willingness and practical applications expected from the CTPOs in order to succeed in cooperative training. 5 (1.3%) of the informants rated the practical application of the cooperative training by the CTPOs at a very high level. 21 (5.3%) of the informants agreed at high level while 115 (29.9) of them rated medium level. The highest rate of level constitutes 165 (43%) of participants and that is low level. The rest 78 (20.3%) of the respondents agreed with very low level.

In order to make the cooperative training program progressive and applicable, The respective colleges must plan in advance, work hard and negotiate strongly with the CTPOs on how to run the training program cooperatively.

The 3rd item discusses about the adequacy and quality of cooperative training program to prepare trainees for self employment & entrepreneurial motivations. In this regard, 67 (17.4%) of the participants sounded very high, 195 (50.8%) of them proposed high level, while 114 (29.7%) of the participants rated medium and 8 (2.1%) of them said low. As we have seen from the data, strength of cooperative training is found to be high and that is in fact encouraging and should be enhanced to the maximum. The respective colleges also have to take responsibility of selecting the most popular & exemplar companies and cooperative training providing organizations.

Coming to the 4th item of the given table, we can understand that the item asks whether or not the trainees had necessary information on kind and nature of training fields corresponding to the employment opportunity. 14 (3.6%) of the informants believed the extent of the item as high level. 160 (41.7%) of them decided the level of the item to be medium while 200 (52.1%) of the informants assumed the level of the item to be low and the rest 11 (2.9) of them decided the extent of the item to be very low. Scholars in the field, believed that information is a very important thing to communicate what we have with others and make bridge between the demand and supply. Therefore, the trainees must be aware of their field of study and future employment opportunity.

Table 28 Level of partners' & stakeholders' need & participation

N	Items	Alternative responses	Respondents							
			Instructors		College officers		Regional Bureau officials		Total	
			N	%	N	%	N	%	N	%
1	Whether the knowledge & the skills obtained by the trainee's through the middle level program are effective according to the need of the stakeholders & employers.	Yes	17	77.3	9	75	5	83.3	**31**	**77.5**
		No	5	22.7	3	25	1	16.7	**9**	**22.5**
		Total	**22**	**100**	**12**	**100**	**6**	**100**	**40**	**100**
2	The stakeholders' participation in general & the employers in particular in the middle level training program.	Above satisfactory	--		--	--	--	--	--	--
		Satisfactory	2	9.1	1	8.3	2	33.3	**5**	**12.5**
		Below satisfactory	11	50	9	75	3	50	**23**	**57.5**
		Unsatisfactory	9	40.9	2	16.7	1	16.7	**12**	**30**
		Total	**22**	**100**	**12**	**100**	**6**	**100**	**40**	**100**

Table 28 attempted to detect level of partners' & stakeholders' need & participation. Then Item 1 of the given table presented that whether or not the knowledge & the skills obtained by the trainee's in the training program are effective according to the need of the stakeholders & employers. The relevant participant to address this item is instructors, college officers and regional bureau officials. As indicated in the table, 31 (77.5%) of the participants disclosed agreement whereas 9 (22.5%) of them marked disagreement by rating "Yes and/or No". The 2nd item deals with the stakeholders' participation in general & the employers in particular in the training program.

Here 5 of the informants said satisfactory, 23 of them decided the participation below satisfactory and 12 of them agreed with unsatisfactory. In this category, the governing level of participation of the stakeholders is below satisfactory. It is too easy to understand that without strong participation of the stakeholders and partners it is unlikely for TVET colleges/institutions to achieve in to the intended goal Therefore, the colleges need to plan advanced strategy to enhance the level of participation of the stakeholders and partners.

Table 29 Planning of middle level program & whether or not it considered resource provision

N	Items	Alternative responses	Respondents									
			Trainees		Instructors		College officers		Regional Bureau officials		Total	
			No	%	No	%	No	%	No	%	No	%
1	The most responsible planner of the middle level program is.	Federal Educaion Minister (FEM)	--	--	5	22.7	3	25	2	33.3	10	25
		Regional TVET bureau by the approval of FEM	--	--	12	54.5	6	50	3	50	21	52.5
		Regional TVET bureau by its approval	--	--	5	22.7	3	25	1	16.7	9	22.5
		College deans	--	--	--	--	--	--	--	--	--	--
		Total	--	--	22	100	12	100	6	100	40	100
2	The conside ration of reso urce in relat ion to train ees' enrollm ent rate.	Very high	--	--	--	--	--	--	--	--	--	--
		High	6	1.8	--	--	--	--	--	--	6	1.8
		Medium	40	12.1	1	4.5	1	8.3	1	16.7	43	11.6
		Low	106	32.1	3	13.6	1	8.3	3	50	113	30.5
		Very low	178	53.9	18	81.8	10	83.3	2	33.3	208	56.2
		Total	330	100	22	100	12	100	6	100	370	100
3	Allotted time for the middl level progrm is insufficient.	Yes	152	46.1	7	31.8	6	50	4	66.7	169	45.7
		No	178	53.9	15	68.2	6	50	2	33.3	201	54.3
		Total	330	100	22	100	12	100	6	100	370	100
4	The position of college library to accommodate & serve the middle level trainees	Very high	--	--	--	--	--	--	--	--	--	--
		High	82	24.8	5	22.7	3	25	1	16.7	91	24.6
		Medium	165	50	10	45.5	8	66.7	5	83.3	188	50.8
		Low	83	25.6	6	27.3	1	8.3	--	--	90	24.3
		Very low	--	--	1	4.5	--	--	--	--	1	0.3
		Total	330	100	22	100	12	100	6	100	370	100

Table 29 attempted to treat planning of middle level whether or not it considered resource provision in comparison to the number of enrollment. In this regard, Item one of the given tables asked for the most responsible planner of the middle level TVET program.

The concerned participants to respond this item are the instructors, the college officers and the regional officials. Among 40 in number, 10 (25%) of them said the most responsible planner is federal education minister (FEM) while 21 (52.5%) of them expected the planning program to be carried out by the regional TVET bureau by the approval of FEM.

The rest 9 (22.5%) participants responded that the most responsible planner is the regional TVET bureau by the approval of itself. According to the dominant participants, the most responsible body to plan the middle level TVET program is found to be the regional TVET bureau by the approval of FEM.

As shown in item 2 of the table, the consideration of the resource in relation to trainees' enrollment rate is one of the questions provided to the respective participants. In this regard, 6(1.8%) of the informants rated high level of consideration to the resource provision while 43 (11.6%) rated medium. 113 (30.5%) of the respondents showed low level and 208 (56.2%) of the majority decided very low level of consideration.

The 3rd item of the table comes across with time allocation for the training program by the respective instructors whether that is sufficient or not. In this regard, 201 (54.3%) of the participants believe that the allotted time by the respective instructor is sufficient.

In contrary, 169 (45.7%) the participants responded negatively, in that allotted time for the training program in comparison to the two views is sufficient. Indeed the newly announced outcome based TVET approach has given the responsibility of allotting time to the instructors. Therefore it is possible to allot additional time to each training program if necessary.

The last item of the respective table asked for the college library whether or not it is in a good position to accommodate & serve the training program. As described by the participants, 91 (24.6%) of them accepted the library to be highly sufficient to accommodate and serve the college community. Consequently, 188 (50.8%) of the informants accepted its standard to the medium level. The rest of 90 (24.3%) of them believed it is to be low level and 1 (0.3%) of the participants assumed the library to be very low.

In addition to close ended questionnaire, interview and focus group discussions, **two basic open ended questions** were also provided to all participants. They are:

1. In your college, what are the major factors (problems) that affect the proper implementation of the middle level (L-3 & L-4) training program ?
2. What alternatives and/or pragmatic treatments do you suggest to improve quality of the middle level program ?

Accordingly, the major factors that are affecting the training program, as depicted by the all participants, are listed hereunder.

- Unbalanced number of trainees in the class or workshops, which is beyond the capacity of the space of workshop and resources.
- Lack of raw materials
- Delay of resource provision
- Constraints of competence and encouragement from the instructors
- Improper utilization of resources (consumption of training materials) and time
- Poor management system
- Poor rapport between the instructors and the trainees
- More attention and time spent on theory than practical work
- Instructors turn-over
- Lack of interest on both parties (the instructors and the trainees)
- Weak performances of the CTPOs and the respective colleges

Possible comments and suggestions stated by the participants

- Number of trainees should be limited according to the space and resources.
- Cooperative training programs should be prepared & followed up in-advance.
- Enrollment, placement/streaming should be based of full interest of the trainees.
- Maintenance of machines should be on time.
- Public promotion about the training program should be undertaken continuously
- Instructors turn-over should be treated.
- Information about the fields of study and job opportunity should be declared strongly and previously and the like.

Figure 1 Summary Sheet of the Interview held with the CTPOs Supervisors

Interviewee	1st item	2nd item	3rd item	4th item	5th item	6th item	7th item	8th item	Typical (unique) cases
	Willingness of the CTPOs to accept trainee for the training program	Affecting factors against cooperative training	Access given for the train-Ees to get important machines and tools	Whether CTPOs supervisors evaluate the trainees performance	Contribution cooperative training for the trainees world of work	Whether the CTPOs were discussing with the college about the training	Competence of the trainees to the job they were given during coope-rative training	Suggested solutions	
1	Less willingness	Follow up problem of the college instructors	There was lack of num-ber of relevan-t machines	Evaluated Rarely	high	rarely	It was low	A strong follow up should be facilitated	------
2	Different accor-ding to the kind of organizations	Problem of the trainees Competence	Treat about miss use of the tools	Incompetent to evaluate	They doubt	Sometimes	Some have a good competence	It has to be pre-planned well	------
3	In some cases good & in some other cases less	Problem of time management	There were shortage of machines	There was time constr-aint to do so	Very high	Did not	Some are com-petent & the others are not	Sufficient time should be allotted	
4	Less willings	Transportatio n problem	They have been given	No, because of time cons-traints	They are not quite sure	Not usually	Not yet competent	-------	Transportai on problem
5	medium	Miss-match of unit of competence to the CTPOs	If it was present,they have been given	They didn't b/c of asses-sment tools and time	Very high if improved	nothing	It depends on the kind of the fields	The compe-tence of the students should match	--------
6	Much less	Students' lack of interest	We gave them	Did not evaluate	high	rarely	A few of them only	-------	
7	Very high	Follow up problem by the college instructors	There was treat of miss use of the tools	No more attention and time to do so	It contributes much more	sometimes	I couldn't decide	Follow up mechanisms should be enhanced	Threat of miss use seem to be unique
8	It is some how good	Problems of the trainees competence	The compet-ence did not match	No interest to do so	I think so	We did not discussed	They have medium competence	The compete-should match each other	--------
9	Less	Students' lack of interest & commitment	They didn't use the tools properly	They haven't been told to do so	If well done, it contributes much	I don't think so	I didn't evaluate them	The trainees should be committed	---------
10	Average	Problem of time manag-ement	The students discipline was not good	No awarene-ss to do so	They doubt	I don't remember	I think they have a good competence	The two parts should mana-age the time	Disciplinary case is unique
Theme case	Most of the CTPOs one way or onother do not have strong willingness of giving coopera-tive training	Follow up, Time manage-ment,students disinterest,trai nees competen-ce are the main probledms	Miss use Lack of the tools ,treats are assumed to be hinder-ences.	Problems of time,interest awareness, competence, are the main are in focus.	Relatively the intervi-wee believe that it will have a good contribution	According to the particip-ants discuss-ions didn't carried out strongly	The intervie-wee did not have clear understanding b/c they did not evaluate	The two resp-onsible bodi -es should pay commitment to the copera-tive training	---------

Analysis of the summary sheet of the interview

As shown in the theme case of item 1 of the summary sheet all the interviewee indicated that most of the CTPOs one way or another do not have strong willingness of providing cooperative training because of various reasons. Item 2 revealed that follow up system, time management, students' interest and incompetency are the major factors affecting quality of the cooperative training programs.

The theme case of item 3 found that the students misuse o machineries, lack of tools and threat to offer necessary materials to the trainees and the like are said to be the main problems accordingly. The 4rd theme case of the item found that time constraint; interest and competences of the supervisors to do so and awareness gaps are hindrances in order not to evaluate performances of the trainees during cooperative trainings.

According to the 5th theme case of item 5, almost all the interviewee believed the cooperative training has a high contribution for the trainees' world of work if the program is strongly performed. As shown in the theme case of item 6, discussions between the colleges and the CTPOs did not carried out strongly and frequently.

From the theme case of item 7 we can understand that competences of the trainees to perform the given job during cooperative training is not clear to the interviewee because they did not evaluate competences of the trainees continuously. As it is indicated in the last (8th) theme case, all the interviewee suggested that particularly the respective colleges and the CTPOs should pay due attention to the cooperative training programs in order to keep quality of the program.

Chapter Five

5. Summary, Conclusion and Recommendations

This is the final chapter through which the summary of the findings and conclusions that are derived out from the summary of the data analysis are discussed. In addition, the possible recommendations suggested as a means of treating factors affecting middle level TVET program in particular and the whole training program at large is presented in this chapter.

5.1 Summary of the findings

This study, as mentioned in different sections and cases, aimed at assessing factors affecting middle level TVET program with reference to Hossana and wolkite polytechnic colleges. Factors that affect middle level TVET program in terms of availability and adequacy of training materials were generally overviewed. Beside these, Quality, practicality, and effectiveness of different programs are also addressed in the course of this study. In addition to these essentials, concerns and participations of the responsible bodies and some other problems related to the quality of middle level training program were widely raised accordingly.

To meet the intended objectives, and get the most possible answers to the basic research questions by making review of the related literature and collecting relevant information through the research tools, all possible efforts were made using descriptive survey method. As a result of analysis of data, the summary of the findings is presented according to the items raised in those consecutive tables and summary sheet on chapter four.

5.1.1 Summary of the characteristics of the participants

In relation to the characteristics of the participants' sex, we can realize that the overwhelming majority of trainees, instructors, graduates, college officers, and the regional TVET bureau official are male. In every cases and dimensions the participation of females is low. In fact due to the attempt of the government and the whole society, nowadays, the number of female trainees, in comparison to the male, is said to be progressive.

According to the age distribution of the sample population, almost all (98.2%) of the trainees are in the proper age level for TVET program, even for university education. Among these, 58.5% are ≤ 20 years and 39.7% of them are between 21-25 years. Similarly, 77.3% age range of the instructors is ≤ 30, among these, 45.5% are less than 25 years while 31.8% are between 26-30 years. Only 9.1% of the instructors are between 31-35 while 4.5% are in the age range of 36-40 years. As a matter of fact, age similarity is very important factor which contributes for a good closeness between the trainees & trainers.

5.1.2 Summary about the training materials, human Resource and financial resource

One of the most important aspects of the training program that should be assessed was the adequacy and availability level of resources and their relevance to the intended purpose; in this respect the following major findings are obtained.

- Not only adequacy but also availability level of training machines & materials are found to be medium and below that, this is due to the problems related to timely maintenance and less capacity of the colleges to buy sufficient new machineries and other materials.
- Adequacy level of human resource is said to be low and financial resource is very low.
- It is recognizable that how lack of human and financial resource can affect the training program in particular and attainment of the intended goal in general. On top of these, the adequacy and availability of the resource, according to the data, was not considered during the planning of trainees' enrollment.

5.1.3 Summary about the Academic Issues, Activities and Strategies.

We can understand from the rate of responses that the quality of the academic issues is found to be medium. With regard to practicality, despite slight deference in rating, all the participants viewed the practicality of the academic cases at medium level.

Another dimension of the summary of findings goes to the effectiveness of the cooperative training, labor market assessment system, and gap assessment programs due to every case of the training program expected to be done timely or periodically. As it was discussed in analysis part, majority of the participant placed these activities in to medium level. Another aspect of effectiveness in this summary of findings look for intervention strategies, problem solving mechanisms, monitoring methods, evaluation strategies and feedback mechanisms. Accordingly, majority of the respective participants decided the issues to be medium.

Majority of the respective participants witnessed that the level of concern and/or participations of the front-liners and stakeholders is found to be slightly high. As far as some other related problems are concerned, because of conscious reason, instructors turn-over, trainees drop-out and disciplinary problems are assessed under this study. According to the majority of the participants, the degree of the problems (items) is found to be high.

Placement (streaming) The study revealed that 50% room is left for trainees' interest, talents and abilities to be considered in this process. In contrary to the declaration of TVET strategy, potential factor affecting our TVET programs starts with the trends we employ in placement & streaming of prospective trainees. As it was found, the major problem in matching the trainees with fields of study is the major gap in identifying the need & interests of the trainee's accordingly.

Trainees' interest towards their field of study fallen at high level which was contributed by the majority of the participants. As discussed above, the placement (streaming) of the trainees was made by partial assignment of the college through which the interest of the trainees is assumed to be low. By any means, the result of these two reasons seemed to be conflicting with each other. But by reality the degree of the students' interest was rated at high level probably because of the eagerness or curiosity of getting (generating) income for themselves. As described in the literature review, the demand of a 10^{th} grade complete young boy/girl (the trainee) for job is very high.

Instructors' interest to work in TVET colleges/institutions The current situation of the instructors' interest to work at TVET colleges/institutions, as discussed in analysis part, sense of dilemma is realized in identifying the interest of instructors in

which the closeness of the participants' information is too narrow with only 13% of difference. Hence, 56.5% (yes-interest) whereas 43.5% (no-interest) is realized from the respective data. This result urged the researcher to think of the information he had about the salary promotion of TVET instructors which was planned to be practical in near future. Thus, the instructors might disclose emphatic interest restoration because of the information announced by the government. Then, this could be the possible reason for the competitive response (percentile) filled by the participants.

Concerning in-service training and pedagogical training, majority of the instructors have joined further short-term training to upgrade their qualification. Beside this, almost all of the instructors has got pedagogical training. Of course, it is important to note that majority of the instructors, (51-75%) who didn't hold 1st degree, are attending in service training in order to up-grade their qualification.

Trainees level of competence was one important component included in the study. Consequently, the following findings were drawn from the analysis accordingly.

- However, the TVET strategy stipulates that trainees ought to have a minimum of first degree or (B – level instructors) in their respective fields of study to teach in the colleges, especially within the boundary of training level of this study.
- But as indicated in tabular description of sample population on page 71, still there are many in number, (63.6%) of 10+3, level 3 or level 4 graduate instructors giving training to middle level (L-3 & L-4) trainees (students) while 36.4% of the B-level instructors are there giving training to the same level of trainees.
- **According to instructors' and trainees' competence,** it was found that the majority (51%) of the participants asserted that instructors' competence is above satisfactory while 58.6% of the respective participants agreed that the level of trainees' competence is satisfactory.

Feasibility of the training program, as discussed in the part of analysis, majority (53.1%) of the participants decided that feasibility of the training program, in-terms of correspondence between theoretical and practical training is medium, the majority (51.1%) of the participants agreed that feasibility, in-terms of sufficiency of knowledge & skill acquired by the trainees is competent in the world of work is also medium.

Similarly, the majority (53.3%) of the participants asserted that feasibility in-terms of competence provided in the middle level training program is relevant to the world of work is again medium.

In general, feasibility of the training program as concluded by the majority (52.5%) of the participants is found to be quite medium and this indicated that the colleges under this study in particular and others in general should work hard to enhance feasibility level of the training program in to maximum standard.

According to labor market information, as clearly and widely discussed by the focus group in one of the college under study, construction, industrial and business are the three most prioritized fields in the labor market. As understood during the focus group discussion, the two bodies (the colleges and the regional TVET bureau) conducted the assessment in order to identify which field of study was to be opened in the training year. The frequency of assessment might be varied from those levels which were not included in this study. According to the majority of the participants, sector based labor market assessment system is found to be the relevant.

Regarding the cooperative training programs, four integral components on how they can affect the training program are provided to the participants and are responded accordingly. As rated by the participants, the problematic aspects were :

1. Lack of willingness in the part of the CTPOs to provide the training.
2. Insufficient resources that the CTPOs had.
3. Restrictions made by the CTPOs not to provide necessary machines and tools during the training programs because of some suspicions.
4. Weak mechanisms to follow-up the trainee during the training programs.
5. Misunderstandings about the nature of some training in the CTPOs.
6. In addition, it was discussed that readiness & courage of trainees to challenge problems that are affecting their progress towards achievement of their academic and work related goals is not strong.

Participations of stakeholders & partners, as discussed in data analysis part, are found to be below satisfactory while planning middle level training program did pay no more attention to resource consideration. According to the majority of the participants, the most responsible body to plan the middle level TVET program is found to be the regional TVET bureau by the approval of the Federal Education Minister.

In the case of the 2nd component, majority of the respective participants decided that balance of resource with the trainees' enrollment is found to be very low.

The 2nd component issue raised are, time allocation whether or not it was adequate and/or sufficient. In this regard, the participants especially the trainees agreed that the allotted time is sufficient for the trainings. Even if the time is insufficient, the responsibility to allocate additional time is given to the respective instructors

5.1 Conclusions

On the base of major findings, the following conclusions are drawn by the researcher.

From the very beginning an establishment of the TVET colleges/institutions is aimed at enhancement of economic development of the country by providing well equipped and facilitated quality training to the youth in order to enable them to be competent in the world of work. As to attain to this goal, it is also must to potentially avoid any affecting factors of the implementation of the training programs.

As it is found out, the placement (streaming) leaves restricted narrow room for the students interest & tracks academically slow learners who could not get above the cut-off point in to TVET colleges/institutions whether they prefer or not. This means, a lot of students do not join the TVET program unclear insight.

Some years ago, interest of the trainees in different fields of study was very low because of the aforementioned reason and some other problems. Nowadays, because of interest enhancing promotions done by the government and the responsible bodies, gradual changes are being realized accordingly. Even if this is so, the study showed that, still now there are weaknesses of providing sufficient information about fields of study corresponding to the trainee's world of work or job opportunity. Hence, eligible number of trainees joined to the TVET colleges/institutions either unconsciously or by obtaining unreliable information. This in turn affects their choice of occupation and career development. On top of these, attitudinal, psychological and guidance service problems, the study had addressed that considerable human, material, financial, and technical hindrances tended to affect against the TVET programs. Indeed the TVET program doesn't provide job to the youth who graduated from any level.

Rather it enables the trainees to obtain basic knowledge and skills which help them to be competent in the world of work. But majority of the trainees attained in the colleges/institutions, as discussed by the focus group, did not have confidence not only on the training they were running but also on the skill they acquired to perform a job. This might be due to weak balance between the theory and practice in the training sessions and inadequacy of the cooperative training.

The colleges/institutions do not have sufficient and equivalent instructors to the relevant training levels as planed in the TVET strategy. Number of C-level instructors who were giving courses to level 3&4 haven't yet earned their 1st degree. The colleges generally have modern machines and equipments in most of their major fields of training, but they lack adequacy which might forced the instructors to divide the trainees into smaller groups to work on these machines turn-by-turn. This also clearly reduces the length of time for which the trainees needs to work on a given machine in order to properly develop the required skill.

There are no more facilitations or commitment to offer sufficient information to students in high schools to create awareness about different skill training programs awaiting them, the related job opportunities and the like, to help them identify fields of training that appeal to their interests and make themselves psychologically ready for skill training before joining the TVET program.

Absence (shortage) of text books for major fields of the trainings which forced trainees to highly depend only on the short notes provided by the instructors, and in the shortage of other training facilities. As a result, the training they are taking might not be reliable in making the trainees competent in the labor market to easily join the world of work. There is less strong cooperation between the colleges and the CTPOs as disclosed by the respective participants. In addition, the CTPOs lack willingness and the capacity of providing the trainees with the required machines, equipments and the necessary inputs which are very important to enhance skill development.

Generally stating, Adequacy and availability level of training materials, machines, spare parts, safety rules, workshop documents, and inputs like human and financial resources, in comparison to the number of trainees at hand, are said to be insufficient and need the responsible bodies to work hard to treat these factors.

Quality, practicality and effectiveness level of academic issues, different activities and strategies, as mentioned by the participants, needed to get progress and improvement accordingly. In order to do so, affecting factors which are cited by the participants in this regard, requires being separated and treated through great effort and due commitment of the concerned bodies of the respective colleges as to achieve to the intended goals.

5.3 Recommendations

Within this part, the study attempts to forward actions and solutions to be taken in light of the major area of concern presented in the findings and conclusions.

1. An interest is the driving force for any activity or a certain concern. Education and training system of our country should focus on the methods of developing interest of the trainees, the instructors and other responsible parties. Specially the prospective trainees can only show inclination for skill training through well organized professional interest creating guidance & information that can make them aware of various fields of study (skill training programs) provided in TVET colleges/institutions and the job opportunities available in the labor market.
2. It is difficult for the trainees (graduates) to start their own business other than a strong confidence on the skill they have developed. Skill development requires an extensive practical work. It is therefore very crucial for the TVET program to give especial attention to practical training by making all required machines and equipment available in sufficient number and by insuring timely maintenance of faulty machines so that the trainees can easily get the chance of working on various training machines as frequently as possible to properly develop the skill required.
3. The feasibility of the training programs depend upon the trainee's practical know how acquired during the training. Not only how to do things but also what to do. Therefore, it is important to strike the balance between theory and practice in the training colleges/institutions.
4. The trainings which are carried out in the TVET colleges/institutions should be well organized, targeted and continuous to significantly reduce the skill-gaps observed and mainly enhance the practical competencies of the instructors.

5. As clearly stated in the national TVET strategy, it was planned to provide high quality training in different forms and levels to large number of trainees, but it is realized that could be impossible to attain this goal with a diminishing dependency on government budget in the long term. However, still the institutions are at the shoulder of the government to fulfill their need of resources. In general, to provide quality training and enhance their institutional sustainability, for the institutions, it is advisable to establish a closer relationship with the employers. Moreover, the institutions need to be engaged in producing different materials that can be sold because this can strengthen their financial resources and it can absorb some of the graduates with in the production centers.

6. As far as middle level TVET program is concerned, in order to make the transition from the TVET colleges/institutions to the world of work smooth and easier for trainees, the colleges/institutions have to establish close link with the industrial sector and coordinate the trainings that take place at both sides through continuous and uniform training process to develop reliable skills that can make them competent in the labor market.

7. It is indicated that if TVET colleges/institutions in general and the respective colleges under this study in particular, have to play a pivotal role in employment expansion, the training has to be effective. This was mainly achieved through practical sessions and cooperative training. However, the present status of the cooperative training program is not strong. Hence, to make the cooperative training program successful :

- The colleges should take additional and maximum initiative by making the employers to be involved in discussions related to the cooperative training programs and labor market issues. This indeed helps the colleges in obtaining valuable inputs from the employers regarding the programs.
- A strict follow-up and evaluation of the cooperative training programs during the sessions from both sides is mandatory. Because evaluating once upon a training time is not enough to measure performances of the trainees and the CTPOs participation as well.

8 However, it is not possible to procure the latest and additional machines for the trainings as the need arises, the existing (available) machines and tools should be properly and timely maintained.

9 On top of the inadequacy of the financial resources, the training programs were being affected due to lengthy process of purchasing. Therefore, the work force of financial processes should get adequacy and the overall systems of purchasing should be improved and amended as far as possible by the concerned bodies.

10 Although the available trades are related to the world of work, it should be supplemented by a regular need assessment because it may cause market saturation in some trades. Hence, the regional TVET bureau and the colleges/institutions should conduct a need assessment or regular bases to protect the undesired effects of the training programs. Moreover, it is advisable to focus on the demand driven training policy as designed by the government so far.

11 The existence of sound management in any organization has a paramount importance in performing the day to day activities of the organization smoothly. In light of this fact, the management of the TVET colleges/institutions is expected to make efforts to create conducive work environment that enable trainees and the instructors feel free to participate actively in the institutions matter and inspired their views. This also helps in developing sense of responsibility and owner ship among the community of the colleges/institutions.

12 Finally, since this study is not an end on assessing factors affecting the middle level TVET program. Rather, for further success, in depth study in this regard need to be conducted focusing on the same head topic.

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Appendix 1

Questionnaire to be responded by the regional officials,

the Deans, Registrars & process owners and the instructors

Addis Ababa University

School of Graduate Studies

Institute of Educational Research (IER)

Part One

Personal profile of the participants

1. Name of the TVET College you are working now .....
2. Sex Male ( ) Female ( )
3. Age 20-30 years ( ) 31-35 years ( ) 36-40 years ( )
   41-45 years ( ) 46-50 years ( ) ≥ 51 ( )
4. Year of service : A. ------- year in TVET institutions
   B. ------- in other organizations
   C. ------- Other work experience if any --------
   ---

5 Your current position ----------

6. Years of current position in charge ---------- years.
7. The process you are working now ----------
8. Qualification A) Diploma ( ) BSC/BED/BA ( )
   C) MSC/MED/MA ( ) D) PHD E) Other ----------
9. Major field of study ----------
10. The field you provide training now (if so ....)
11. Your field (d/t) ---------- Level ----------
    Year 1 ( ) 2 ( ) 3 ( )

5 Feasibility of the training program

1. To what extent do you think is the 30% theory & 70% practical training are properly matched under the middle level program ? A) Very high B) High C) Medium D) Low E) Very low
2. To what extent do you think the knowledge & Skills the trainees acquired is sufficient to be competent in the world of work ? ? A) Very high B) High C) Medium D) Low E) Very low
3. To what extent do you think the competences been provided within the middle level program are relevant to the world of work A) Very high B) High C) Medium D) Low E) Very low
4. 6 To what extent the bridge between middle level training & labor market is strong A) Very high B) High C) Medium D) Low E) Very low

6 State of workshop facilities

1. Instructors' & trainees' desire & expertise to properly operate training machines without trial & error to fully utilize them in the practical training processes. A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory
2. Machines in the workshops frequently timely maintained in order not to get stay idle for a long time. A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory
3. Adequacy of machines & equipment in the workshops A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory
4. Availability and adequacy of hand tools in the workshops A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory
5. Availability & adequacy of stationeries, raw materials and related inputs A) More than satisfactory B) Satisfactory C) Below satisfactory D) not Satisfactory
6. Availability of spare parts of different machines A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory
7. Availability of software, different programs & accessories for computers A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory

8. Relevance of the machines & equipment to those in use in the labor market

A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory

9. Availability of uninterrupted supply of electric power A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory

10. Technological up-to-datedness of machines & equipment A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory

(7) Aspect of need assessment & labor market information system

1. Do the TVET bureau conduct training need assessment ? A) Yes B) No
2. If « Yes » how often ? A) Every year B) Every two years

C) Every three years D) Other if any ? ----------

3. Do the colleges conduct need assessment ? A) Yes B) No
4. How often ? A) Every year B) Every two years

C) Every three years D) Other if any ? ----------

5. What ways are used to obtain labor market information ?

A) Labor market monitoring B) Tracer study C) Sector based assessment D) All are used at the same time

6 To what extent do the trainees get necessary information on the kinds & nature of the training fields and the corresponding employment opportunities before they enrolled for a certain field of study ? A) Very high B) High C) Medium C) Low D) Very low

7 To what extent the bridge between middle level training & labor market is strong

A) Very high B) High C) Medium D) Low E) Very low

8. Promotion of self employment opportunities made by the College to encourage Prospective graduates to start their own business.

A) Very high B) High C) Medium D) Low E) Very low

9. The extent to which the college is helping prospective graduate in facilitating an easy access to soft loans to encourage those who want to start their own business individually or in group.

A) Very high B) High C) Medium D) Low E) Very low

10. Trainees sense of opening their own business rather than being wage earners in joining the world of work.

A) Very high B) High C) Medium D) Low E) Very low

(8) State of cooperative training

1 How do you rate the contribution of cooperative training to the trainees job opportunity or world of work after graduation ? A) Very high B) High C) Average D) Low E) Very low

2 If your response is average & less than that what do you think are the problems ? A) The companies (the CTPOs) do not have sufficient resources B) Restrictions to the trainees about performing on machines & tools during cooperative training C) Follow-up mechanisms are weak

D) Inappropriateness of the cooperative training with their field of study

E) Assigned supervisors are less qualified and/or uncommitted

F) Other problem, if any, mention ----------

3 The extent to which cooperative training can enhance the practical skill of the trainees, A) Very high B) High C) Medium D) Low E) Very low

4 Capacity & efforts made by CTPOs through cooperative trainings to cover the jobs & duties listed in the training modules/manuals A) Very high B) High C) Medium D) Low E) Very low

5 Willingness & practical application of CTPOs in assigning cooperative training on activities directly related to the major fields of training.

A) Very high B) High C) Medium D) Low E) Very low

6 The extent to which the CTPOs are conducting the training in a way that can help the trainees perform a given piece of work independently & became active participant in the cooperative training process. A) Very high B) High C) Medium D) Low E) Very low

7 Adequacy & quality of cooperative training program to prepare trainees for self employment. A) Very high B) High C) Medium D) Low E) Very low

8 The degree, to which the cooperative training program, as it is being given, enables the trainees to develop entrepreneurial motivation.

A) Very high B) High C) Medium D) Low E) Very low

D) College deans by the approval of regional TVET bureau

E) C) Departments by the approval of deans & latter TVET bureau

F) College deans by the approval of themselves

2. What about the consideration of resources in relation to trainees enrollment rate ?

   A) Very high B) High C) Moderate D) No consideration at all

3. Is the time allotted for the middle level (L3&4) program sufficient to acquire the required knowledge & Skill ? A) Yes ◯ No ◯

4. To what extent do you believe the College library is in a good position to serve the middle level program. A) Very high B) High C) Medium

   D) Low E) Very low

(10) Level of partners & stakeholders' need & participation

1. How do you rate the stakeholders participation in general and the employers in particular in the operation of your college ?

   A) Very high B) High C) Moderate D) Low E) Not at all

2. Do you believe that the knowledge & the skill obtained by the trainees through the middle level program are effective according to the need of stakeholders & employers ? A) Yes B) No

3. If « No », what do you think are the major factors that affect effectiveness

   A) The training is not fully related to the stake holders need & desire of employers B) Some of the training time is spent because of different reasons C) More of the training time is also spent on theory and verbal approach D) The machines & tools are not related to the practical work E) Curricular problem is one of the factor that affect the program F) Insufficient intervention & pragmatic treatment G) There is a gap with regard to monitoring, evaluation & feedback.

Part Three

1. In your College, what are the major drawbacks (problems) that affect the proper implementation of the Middle Level (L,3&4) training program ? ----------

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   ---

2. What alternatives and pragmatic treatments do you suggest to improve quality of the Middle Level program ? ----------

   ---

Appendix-3

Questionnaire to be responded by the trainees and the Graduates

Addis Ababa University

School of Graduate Studies

Institute of Educational Research (IER)

Part One Personal profile of the participants

1. Name of the TVET College you graduated .....
2. Sex Male ◯ Female ◯
3. Age 15-19 ◯ 20-30 years ◯ 31-35 years ◯
   36-40 years ◯ 41-45 years ◯ 46-50 years ◯
   ≥ 51 ◯
4. Year of graduation ---------- 5. Field of graduation ----------
6. Level of graduation ----------
7. Level of employment A) Government employee B) Self employee
   C) nonemployee
8. Occupation (if so) ----------

Directions for Filling out the Questionnaire

The purpose of this questionnaire is to collect data on

« FACTORS AFFECTIN MIDDLE LEVEL TVET PROGARAM » – The Case of Hossana and Wolkite Polytechnic Colleges.

Therefore :

1) your *frank, genuine & timely responses* are vital in determining the success of this study.
2) I kindly request your contribution in filling the questionnaire honestly, objectively and confidentially.
3) I assure that all your responses will be kept quite confidential.
4) I encourage you to feel free & be as brief as possible in responding the open ended questions.

Guidelines :

1. There is no need of writing your name.
2. You can skip any question that you are not quite clear or you are not responsible for.

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Addis Ababa University

School of Graduate Studies

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   36-40 years ◯ 41-45 years ◯ 46-50 years ◯
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Appendix-4

Interview Guiding Questions to be Provided to CTPOs

1. Would you, please, tell me about willingness of your organization to accept the trainees for the training programs ?
2. What are the major factors (problems) that hinder the effective implementation of the middle level training programs in relation to cooperative trainings ?
3. Do you think the trainees were given important and relevant machines and tools during the training sessions ?
4. Do you have a time and systems of evaluating the trainees performance of the cooperative training ?
5. How do you measure the contribution of cooperative training to the prospective graduates for the world of work ?
6. Would you, please, describe whether or not your organization involved in any discussions with TVET colleges related to ? cooperative training program ?
7. How do you generally evaluate the competencies of the trainees to the job they are assigned ?
8. What do you suggest about cooperative training program through what the colleges and the CTPOs make the program strong well practiced ?
9. What additional suggestion do you have about the cooperative training program ?

Appendix-5

Check list developed to be used during observations of workshop & project sites

1. Name of the college .....
2. Kind of the place to be observed.....
3. Time in which the site to be observed is established .....

Over all campus conditions

Standard of rating

1=not satisfactory 2=below satisfactory 3=satisfactory

4=above satisfactory 5= excellent

No	Overall appearance of the college	5	4	3	2	1	Remark
1	Cleanliness of the compound						
2	Locations of information						
3	Space of the campus fore expansion						
4	Availability of different services						
5	Blocking						
6	Fixings and notice boards						
7	Physical plantation						

Issues of Availability, adequacy and/or relevance training materials

No	Item	available		adequate		relevance		
1	Workshops & project sites							
2	Machines & equipments							
3	Spare parts							
4	Hand tools							
5	Consumable raw materials							
6	Training modules & textbooks							
7	Teaching (training) aids							

Availability, adequacy and/or relevance of safety rules power

No	Item	available		adequate		relevance		
1	Fire extinguisher							
2	Posters in kinds							
3	Different signs							
4	Exit profiles							
5	Red cross facilities							
6	Electric supply							
7	ventilations							

Availability, adequacy and/or relevance of workshop documents

No	Item	available		adequate		relevance		
1	Mandatory procedures							
2	Process level procedures							
3	Criterion documents							
4	Work instructions							
5	Training schedules							
6	Unit of competence details							
7	Attendance formats							
8	Other facilitations							

Part One

Questionnaire

(1) What motivated the graduates to join TVET program

1. did you ever think ever to join TVET program during the completion of grade 10 ?
   A) Yes B) No
2. If « No », what reality made you join TVET program ?
   D) Less scores at grade 10 examination B) Family enforcement
   E) In need of being technician C) Good information about TVET program
   F) Influence of my friends

3 How was the placement /streaming /of trainees in you college being carried out ?
A) By direct assignment of the college B) By partial assignment of the college C) By full interest & ability of the trainees

4 What influenced you to choose the field of training which you graduated ?
A) Guidance and Counseling which was given in high school
B) Previous exposure to a business venture established in similar fields by a person I closely know C) Parental Advice D) Pre-placement guidance by the college E) Employment opportunity in the field of training I've chosen F) Influence of my friends

5 How would you rate your interest in the training you attended so-far ?
A) Very high B) High C) Medium D) Low E) Very low

6 If your interest in the training you attended is low or very low, what is the major problem ? Academic problem B) Family problem
C) The hard work discipline that the training requires
E) Other problem from the part of instructors or the college

7 Do you believe that you successfully completed the training by developing necessary skill that enabled you easily be employed or open your own business ? A) Yes B) No

2 Factors that influenced the graduates to choose a particular field

1. What influenced you to choose the field of training which you graduated ?
   A) Guidance and Counseling which was given in high school
   B) Previous exposure to a business venture established in similar fields by a person I closely know C) Parental Advice D) Pre-placement guidance by the college E) Employment opportunity in the field of training I've chosen
   F) Influence of my friends

3 Un-employability of middle level graduates

1. Are you ever searching for a job since graduation (for unemployed) ?
   A) Yes B) No
2. If « Yes », by means of what ? A) Sending CV to employee organization B) Searching for vacancy notes C) Making personal contact with employment agencies D) Family effort E) Support of the college
   G) Other way, if any ? ----------
3. Even though you are searching for, why did not you get a job ? A) Due to information gap B) Lack of vacancies in the field I have trained C) Low salary
   D) Lack of work experience E) Due to lack of sufficient skill

4 Employment preference of graduates

1. What kind of occupation do you like if you find ? (for unemployed)
   A) Office work B) Hand work
2. Which sector do you like to be employed ? A) Government
   A) NGO C) Private organization D) Self employment
3. What about a chance of job opportunity for TVET graduates do you think (for employee or unemployed) ? A) High B) Moderate C) Low
4. If « low », Why ? ----- A) The fields are not related to the world of work
   B) Lack of confidence on the part of employers C) Number of graduates exceeds vacancies D) because of inappropriate need assessment and/or labor market information E) Others, if any, ----------

6 Competence level of qualified instructors

1. To what extent do you remember the competence of your instructors was ? A) Very satisfactory B) Satisfactory C) Unsatisfactory
2. If « Unsatisfactory », what were the possible factors (*more than one answer is possible*)

   A) Because of lack of interest

   B) Because of insufficient Knowledge C) Because of de-motivations

   C) Because of flexible curriculum E) Because of skill gaps

7 Feasibility of the training program

1. To what extent was the 30% theory & 70% practical training was related to each other under the middle level program ? A) High B) Medium C) Low
2. Is the knowledge & Skill you acquired enabled to be competent in your world of work ? (for employed) A) Yes B) No
3. If « No » Why ? A) The training did not fit the world of work

   B) More time was always spent on theory

   C) Machines and tools were not related to the practical work.

   D) because of other reasons like, teachers incompetence, power interruption, Teachers turn over & the like
4. Do you think the competences that had been provided within the middle level program are relevant to the world of work ? A) Yes B) No
5. If « Yes », to what extent ? A) Very high B) High C) Medium D) Low E) Very low
6. If « No », why ? A) Because of lack of experience B) Bridge between middle level training competence & labor market is not strong C) World of work needs much more competency than obtained in the middle level program D) The relevance between the competencies & the world of work is not equivalent

12 State of workshop facilities

1. Instructors' & trainees' desire & expertise to properly operate training machines without trial & error to fully utilize them in the practical training processes. A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory

2. Machines in the workshops frequently & timely maintained in order not to get stay idle for a long time. A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory
3. Adequacy of machines & equipment in the workshops A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory
4. Availability and adequacy of hand tools in the workshops A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory
5. Availability & adequacy of stationeries, raw materials and related inputs A) More than satisfactory B) Satisfactory C) Below satisfactory D) not Satisfactory
6. Availability of spare parts of different machines A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory
7. Availability of software, different programs & accessories for computers A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory
8. Relevance of the machines & equipment to those in use in the labor market A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory
9. Availability of uninterrupted supply of electric power A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory
10. Technological up-to-datedness of machines & equipment A) More than satisfactory B) Satisfactory C) Below satisfactory D) not satisfactory

9 Aspects of need assessment & labor market information system

1. To what extent did the trainees get necessary information on the kinds & nature of the training fields and the corresponding employment opportunities before they enrolled for a certain field of study ? A) Very high B) High C) Medium C) Low D) Very low
2. To what extent the bridge between middle level training & labor market was strong A) Very high B) High C) Medium D) Low E) Very low
3. Promotion of self employment opportunities made by the College to encourage Prospective graduates to start their own business. A) Very high B) High C) Medium D) Low E) Very low

4. The extent to which the college was helping prospective graduate in facilitating an easy access to soft loans to encourage those who want to start their own business individually or in group.

A) Very high B) High C) Medium D) Low E) Very low

5. Graduates sense of opening their own business rather than being wage earners in joining the world of work.

A) Very high B) High C) Medium D) Low E) Very low

(10) State of cooperative training

1. How did you rate the contribution of cooperative training for the trainees further job opportunities or world of work after graduation ? A) Very high B) High C) Average D) Low E) Very low
2. If your response is average and less than that what wer the problems ?

A) The companies (the organization) do not have sufficient resources ?

B) Restriction to trainees about performing on machines & tools during cooperative training C) Mechanisms for follow up are weaker.

D) Inappropriateness of the cooperative training with their field of study

E) Assigned supervisors are less qualified and/or disqualified

F) Other problem, if any, ----------

(12) Graduates interest towards self employment

1 Did you have full interest to start your own business (for employed) ?

A) Yes B) No

2. If « No », why was that so ? A) I didn't have money (capital) to buy row materials B) I had entrepreneurial skill gap of creating self business C) Because of hesitation in relation to success D) Lack of courage/psychological makeup E) Lack of support by concerned bodies

3. Is the job you are running now related to your field of study ?

A) Yes B) No

Part Three

3. In your College, what are the major drawbacks (problems) that affect the proper implementation of the Middle Level (L,3&4) training program ? ----------

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4. What alternatives and pragmatic treatments do you suggest to improve quality of the Middle Level program ? ----------

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