

**ADDIS ABABA UNIVERSITY**

**College of Education and Behavioral Studies**

**Department: Educational Planning and Management**

**Program: Educational Leadership and Management**

**AN ASSESSMENT OF THE QUALITY OF EDUCATION AND TRAINING  
IN THE FEDERAL TECHNICAL AND VOCATIONAL EDUCATION AND  
TRAINING INSTITUTE**

**BY SISAY KIFLE**

**June 2018**

**Addis Ababa**

**AN ASSESSMENT OF THE QUALITY OF EDUCATION AND TRAINING IN THE  
FEDERAL TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING  
INSTITUTE**

**A THESIS SUBMITTED TO COLLEGE OF EDUCATION AND  
BEHAVIORAL STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF  
ARTS IN EDUCATIONAL LEADERSHIP AND MANAGEMENT**

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PROGRAM: EDUCATIONAL LEADERSHIP AND MANAGEMENT

This is to certify that the thesis is prepared by Sisay Kifle entitled: An Assessment of the quality of education and training in the federal technical and vocational education and training institute and submitted in partial fulfillment of the requirements for the degree of master of arts in educational leadership and management complies with the regulation of the university and meets the accepted standards with respect to originality and quality.

**Signed by the examining committee**

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**Chair of Department or Graduate Program Coordinator**

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## **ABBREVIATION AND ACRONYMS**

EFA.....	Education for All
ESDP.....	Education Sector Development plan
FTVETI.....	Federal Technical and Vocational Education and Training Institute
GTP.....	Growth and Transformation Plan
MDGs.....	Millennium Development Goals
MOE.....	Minister of Education
NTVETQF.....	National Technical and Vocational Education and Training Qualification Framework
PASDEP.....	Plan for Accelerated and Sustained Development to End Poverty
TVET.....	Technical and Vocational Education and Training
TVETI.....	Technical and Vocational Education and Training Institute
UN.....	United Nations
UNICEF.....	United Nations International Children's Emergency Fund
UNESCO.....	United Nations Educational, Scientific and Cultural Organization

## ***Abstract***

*The study focused on investigating quality of education and training in Federal Technical and Vocational Education and Training Institute. It was explored using a sample of 241 respondents selected through stratified sampling technique and simple random sampling technique. Data were gathered by a combination of qualitative and quantitative methods. Self-administered questionnaires for directors, division heads, trainers, and trainees and interviews for directors and division heads were also the instruments employed for data collection. Analysis of the data was done using descriptive statistics. Findings were that quality of education was affected by inadequate supporting inputs and facilities, inappropriate training methods and lack of trainers' effectiveness and trainees' motivation. Finally, based on the finding I would recommended that the Institute should solve the shortage of resources, improve trainers' capacity by short term and long term training and developing the leadership competency is one of important tools to insure quality of education in the Federal Technical and Vocational Education and Training Institute.*

## CHAPTER ONE

### 1. INTRODUCTION

This chapter consists of the background of the study, statement of the problem, objectives of the study, significance of the study, delimitation of the study, limitations of the study, definition of the key terms and organization of the study.

#### 1.1 Background of the study

Education and training is one of the essential driving forces for a country's economic, social and cultural development. Education plays such a role as it increases and strengthens the creative and productive capacity of human capital. Based on this, education is a tool for generating knowledge, raising living standards, and enriching, as well as transmitting, society's culture to future generations. To meet this goal, it must be of high quality. The concept of quality of education is multi-faced, and is articulated differently by different scholars. It is also important to note that the debate on the attributes of quality of education is still in progress. It is when a wider view of the quality of education is achieved that a fair attempt can be made in analyzing the internal efficiency of an education system, which is a key dimension of the quality of education. The quality debate has evolved over the years, with various definitions of quality coined at each stage, and several models used to analysis quality. Several indicators of quality have also been forwarded and a similar collection of barriers to quality has also emerged, which have challenged initiatives to institute quality of education in several countries (Bergmann, *H. 1996*).

Quality education is historically and socially situated in a context made up of the social economic status of the community, cultural and religious factors and educational knowledge and supportive infrastructure. Teachers, students and the overall policies of governments should be participants in the structure and operation of the education system in a country or state. Governments are held accountable for progressive realization of the right to quality education for all citizens (Alexander, R. U. o. S., Brighton. 2008).

UNESCO (2009) refers to quality education as an improvement of all aspects of learning

and ensuring excellence so that recognizable and measurable learning outcomes are achieved by all learners especially literacy, numeracy and essential life skills such as appreciating and being able to accommodate others, that are necessary for responsible living.

Moreover, many reports from the UNESCO attribute to education an important role in determining economic growth. Studies have shown that there is a positive correlation between an increased access to education and economic growth as expressed by an increased per capita income and human development index (UNESCO, 2009). Strengthening this claim, Adams (1993) asserted that investment in human capital through education is at least as important as investment in physical capital for a country's long run economic success. There for, expanding education in Ethiopia, with a focus on quality, can be an important strategy to ultimately fight poverty, increase productivity and bring about social and economic changes in the country.

As an essential and vital component of education, TVET plays a significant role in the social and economic transformation of society. It equips trainees with the technical skills that position them to contribute their best to country's structural changes. To produce the manpower the country needs, the Ethiopian government established and organized a number of technical and vocational training institutions throughout the country.

The TVET program is designed to train individuals in different areas of knowledge and skills. The training offered is effective if proper infrastructure, adequate materials and competent instructors exist. Unless inputs are adequate and proper, and the process is well organized and conducted, addressing quality education and training and producing competent trainees may difficult. To provide competent instructors to this technical and vocational training institutions the government established a Federal Technical and Vocational Education and Training Institute.

Federal technical and vocational education and training Institute was established in 2003 E.C with the house of Ethiopian people representative by declaration number 245/2003 to update and upgrade Ethiopian technical &vocational education and training college

trainers, leaders and industry technicians with short term and long term training. Technical and vocational education and training strategies and policies of Ethiopia receiving renewed attention. Through its diverse forms, many policymakers see TVET as potentially making a difference to individuals, enterprises, communities and societies at large. Regarding to this one area of concern have come from what I have observed in the past years of my observations majority of trainees in federal technical and vocational education and training institute scored low grades and many students cheat at exams. Trainers also highly complain about low efficiency of trainees (FTVETI supervision report 2016/17). Due to these assessment the quality of education and training was important.

## **1.2. Statement of the problem**

Federal technical and vocational education and training institute is found in Addis Ababa Yeka sub city around lamberet new Bus station near to Federal TVET Agency. The institute is established to address quality education and training to TVET college trainers.

With the Plan for Accelerated and Sustained Development to End Poverty (PASDEP, 2005/06), the Industrial Development Strategy and other sector development strategies, the Ethiopian Government has initiated a new push towards creating frameworks conducive to economic and social development. Comprehensive capacity building and human capital formation are key pillars in all these efforts (National TVET Strategy, 2008).

The PASDEP's main thrust is to fight poverty through accelerated economic growth, to be achieved mainly through commercialization of agriculture as well as economic growth and employment creation through private sector development. TVET is expected to play a key role in this strategy by building the required motivated and competent workforce. PASDEP 2005/06-2009/10 envisages TVET to provide the necessary "relevant and demand-driven education and training that corresponds to the needs of economic and social sectors for employment and self-employment". 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 craftsperson and technician, training programs lacked relevant 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, by-and-large, 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 (National TVET Strategy, 2008).

As the National TVET Strategy (2008) 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 (National TVET Strategy, 2008). They did not choose to become technical teachers, but were placed in technical teacher colleges because there were no other options available to them (National TVET Strategy, 2008).

Finally, most existing TVET teachers/instructors are not appropriately 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 (National TVET Strategy, 2008).

The TVET system strives for the highest quality and relevance of all TVET offers. It will develop effective means of quality management, will continuously monitor the relevance of TVET programs and will provide support and guidance to TVET institutions to achieve defined quality standards (National TVET Strategy 2008).

As stated in Education Sector Development Program IV; to raise the quality of TVET programs, the competence of all TVET trainers has been assessed and necessary several in-service training sessions were conducted. The topics of these sessions were related to the technical gaps identified but also included training methodology, institutional assessment and quality and productivity improvement. Further training on the cooperative training

modality was conducted, which requires trainees to spend 30% of their time in the TVET institution to develop basic skills and 70% in industry to acquire practical skills in the workplace. Regarding to this Federal TVETI follows cooperative training modality and 50% theory and 50% practice (National TVET Strategy 2008).

Generally TVETI as higher institute share these concepts i.e. quality is defined with the standards of quality. Quality education is supported by three key pillars: ensuring access to quality trainers/ teachers; providing use of quality learning tools and professional development; and the establishment of safe and supportive quality learning environments. But the quality of education and training is questionable, because the three key pillars are not fulfilled as required.

The internal supervision conducted in the 2016/17 academic year revealed that a number of factors are affecting the quality of training in the Institute. Some of these include the following.

### **1.2.1. Poor Teacher Performance**

Teachers in the different departments are said to have problems in their respective areas of specialization, pedagogical skill and in their language skills. This is ascertained through different student forums and from the internal supervision conducted in 2016/17. These problems are further explained in the sections to come.

Teachers lack the technical knowledge and skill of their respective areas to effectively impart lessons. Most of the time, they are also criticized for giving emphasis to the theoretical than the practical training. This in return will have great impact on the knowledge and skill of future TVET teachers.

Some teachers do not have initial pedagogical training. Leave alone such teachers, those who have the pedagogical training do not practice good pedagogical skills in the classroom, may be due to carelessness or lack of accountability or poor knowledge, skill, and attitude towards the teaching profession. Moreover, students' continuous assessments do not seem in place; students mainly will be assessed not based on a preset course plan but students are mainly assessed by the traditional mid and final assessment modes (internal supervision

2016/17).

Most teachers lack the knowledge and skills of using the language of instruction-English. As a result students are complaining that teaching is mainly in Amharic and testing is in English. This limits students learning ability and their communication skills (internal supervision 2016/17).

### **1.2.2. Curricula Related Problems**

Most students and some teachers in some departments are complaining about the quality of curricula including on the duration of the study. That is, redundancy of contents in differently named courses, theory-dominated courses, less relevant courses, incomplete courses with respect to depth and breadth, disorganized courses in terms of prerequisites, and the duration of the study which some teachers and most students use to call it insufficient. Some teachers and students also suggest that certain important courses are not included in the curriculum (internal supervision 2016/17).

### **1.2.3. Poor Cooperative Training**

This type of training is familiar to the institute. However, its implementation is in a problem. In one hand, the numbers of cooperative trainings are minimal and on the other such trainings do not go beyond visiting the firm under consideration. This may be for the very reason that some industries may not be willing to accept students to work on the machineries, may not trust students to utilize machineries, departments may not have the initiative towards cooperative training, and students may not take the program seriously; or may be due to other justifications (internal supervision 2016/17).

As the institute supervision report 2016/17 and my observation:-

- The key pillars, infrastructure and training materials are still inadequate; the trainers/ teachers/ are not successfully implement the curriculum;
- Trainee's score are low;
- In training process trainee's participation is very low.
- Most of the trainers/ teachers / complain on the efficiency and effectiveness of trainees in training process.

- Lack of competence and interest to teach and training 50% practical and 50% theory;
- The absence of specialized and skilled trainers/teachers/.
- Large class size and in adequate equipped workshops with materials and facilities were observed. Due to these the problem is serious. So this study is important to recommend to concerned body based on finding with possible solutions. Moreover, no study was conducted in the area in order to minimize the problem. Standing from this the following basic questions are stated.

### **1.3. Research Questions**

1. To what extent do the input factors influence the quality?
2. How much the practical and theoretical method of teaching and training integrated with cooperative training?
3. To what extent does the competency of managers of the institute influence the quality of education and training?
4. To what extent do the academic qualifications of instructors influence the quality?

### **1.4. Objectives of the Study**

#### **1.4.1. General Objective**

This study basically aims at assessing the quality of education and training based on input, process and output factors in federal technical and vocational education and training institute.

#### **1.4.2. Specific Objectives**

The specific objectives of the study are :-

- To assess the extent of input factors influence quality of education and training
- To assess how much the practical and theoretical method of teaching and training integrated with cooperative training.
- To assess the extent of the competency of institute managers influence on quality of education and training

-To assess the extent of the academic qualifications of instructors influence on quality of education and training

### **1.5. Significance of the study**

The outcome of the study will be expected to improve quality of education and training in federal technical and vocational education and training institute.

The result which will be attained through this study will be useful:-

To create awareness on how to fulfill and use effectively three pillars of quality of education.

To help trainers/teachers especially who serve as division heads and administrators how to support other teachers.

To give clear recommendations to administrators, trainers and trainees.

The study also may serve as a sound base for other researchers who need to study on the quality of education and training

Generally, this paper could be used as a launching pad for further study by others, and helps trainers/ teachers to understand that problems hinder effective implementation of training process or practices that promote the teaching and training process and foster a better improvement

### **1.6. Delimitations of the study**

This study is confined to the assessment of quality of education and training in federal technical and vocational education and training institute Addis Ababa. These study was include total 1947 undergraduate trainees, 110 local trainers, 6 directorates and 5 divisions then Sample: - trainees 195, trainers 35, directorates 6 and divisions5. The study was not including post graduate trainees in the institute.

### **1.7. Limitations of the study**

The study had a number of limitations. First, the respondents particularly the trainees the institute complained about being visited by many researchers and some of them refused to cooperate. The researcher had to take time to explain how this particular study was different from others and its importance to the individual trainees. Although time consuming and expensive, the approach worked well for nearly all the sampled trainees, however, some respondents would fail to respond to all questionnaire items. Such incomplete responses were excluded during data analysis and consequently in the final report which affected the sample size for that particular response.

Second, Lack of relevant literature, previous research documents on the issue, a great shortage of financial resources, and timely responses. Finally, the research findings from this study are limited to assessment of quality of education and training in the federal technical and vocational education and training institute and may not be generalized elsewhere.

### **1.8. Operational Definitions of Key Terms**

**Achievement** - Is the point gained as a result of application of efforts maintained through education and training. In this study achievement is taken from the trainees score in different curricular courses.

**Cooperative training** -Means a mode of training delivered by the cooperation of enterprises and training institutions;

**EdQual** -means a Research Consortium led by the University of Bristol UK and sponsored by the Department for International Development, UK.

**Leadership** -Means those officials who manage the training institutions

**On-the- job training**- Means a training offered to employees of enterprises at their places of work after identifying the skill gap they encountered

**Quality education**-Means an education that enables Institute to produce the qualified, knowledgeable, and skilled trainers which benefits the country.

**Quality indicators**-Are the bench marks with which we can systematically assess the quality of education and training.

**Regional state** -Means any regional state referred to in Article 47(1) of the Constitution of the Federal Democratic Republic of Ethiopia and includes the Addis Ababa and Dire Dawa City administrative

**Status**- It refers to the existing condition of practice and problems of quality technical and vocational education and training.

**Technical And Vocational Education And Training** -Means a provision of technical and vocational education and training in any occupation, based on the country's education and training policy

**Technical and vocational education and training Institute:** Refers to the Technical and Vocational Education and Training institute established under Council of Ministers Regulations No. 245/2011;

**Technical and vocational training institutions:** Refers to public /governmental/ institution engaged in the provision of technical and vocational education and training program.

**Trainees:** Refers to students who joined to train at 'B' level and 'A' level (undergraduate and graduate program) in technical and vocational education and training.

**Trainers:** Refers to instructors who assigned to each courses and each program in federal technical and vocational education and training institute.

## **1.9 Organization of the Study**

This study is organized in to five chapters. The first chapter deals with the back ground of the study ,statement of the problem, scope of the study, significance of the problem, limitation of the study and definition of key terms used in this study. The second chapter presents the review of related literature. The third chapter deals with the methodology and procedures employed to collect and analyses the data. The fourth chapter deals with the presentation, analysis of the data and interpretation of the findings. Summary of the findings, conclusion and recommendations are presented in the fifth chapter.

## **Chapter Two**

### **2. REVIEW OF RELATED LITERATURE**

This section deals with reviews of the concept TVET, the major issues related to quality of education and training, and the indicators to be assessed in the application of practical and theoretical methods, curriculum integration, administration concern, trainers qualification, instructional facilities, Quality standards in education and training based on the quality of education and training in Federal technical and Vocational education and training institute.

### ***2.1. Concept of Quality***

The concept of quality of education may not be defined easily, it has a number of definitions by different scholars.

Sean Slade (2017)stats that:-a quality education is supported by three key pillars: ensuring access to quality teachers; providing use of quality learning tools and the establishment of safe and supportive quality learning environments.

UNICEF (2000) defining Quality of Education in terms of learners who are healthy, well-nourished and ready to participate and learn, and supported in learning by their families and communities; environments that are healthy, safe, protective and gender-sensitive, and provide adequate resources and facilities; Content that is reflected in relevant curricula and materials for the acquisition of basic skills. Processes through which trained teachers use student-centered teaching approaches in well-managed classrooms and schools and skilful assessment to facilitate learning and reduce disparities;

Outcomes that encompass knowledge, skills and attitudes, and are linked to national goals for education and positive participation in society. Inter-University Council for East Africa (DAAD, 2010) states that quality is multi-dimensional. When discussing quality, quality of inputs, quality of process and quality of outputs have to be taken into account.

Haki Elimu (2008) expressed four distinct concepts of quality education. These were: “*Quality inputs*. Many respondents equated quality education with material and human resource inputs such as numbers of classrooms, libraries, laboratories, and numbers of teachers, and textbooks.

According to Taylor and Francis (2005).quality is dependent upon the particular context in

which it is to be applied. Quality is essentially part of the learning process, a learning process that is the purpose of an educational organization.

Dare (2005) defines that quality in higher education is the level of excellence in performance which can be measured by establishing acceptable criteria and standards of good performance. This definition focuses on performance based and accepted criteria. Inputs, processes and outputs are the major educational elements to address quality issues. The relationship between inputs and outputs is influenced by various factors and processes and outputs are also numerous and complex (Dare, 2005). There are a number of indicators that contribute to the quality of educational provisions including pupil-teacher ratio, class size, availability of facilities and resources, and the qualifications of teachers. Regarding to this Quality education and training is teaching the skills and tools that are needed to build a comprehensive foundation of knowledge that is meaningful to the student through learning so that one can perform tasks proficiently and to a high standard. In the present age of science and technology, the advanced and developed nations are dominating in the world only due to their latest knowledge (Harvey and Knight.1996).

### **Historical perspectives of Education Quality**

Education in developing countries takes place under conditions that are very different from those in developed countries. Differences exist in curriculum, school environment, teacher-student ratio, teacher qualification, and the health and nutritional status of the learners (Lockheed, 1993).

Vocational education and training is part of the education system in all societies. In some ways, it could be claimed that vocational education is as old as man himself (Bailey, 1973).

All other features of normal schooling, such as classical studies, are obviously much newer than vocational education. But the process of learning skills came from the unconscious imitation of the skills of producing food, shelter and protection from animals (Bailey, 1973).

The quality debate has evolved over the years, with various definitions of quality coined at each stage, and several models used to analyses quality. Several indicators of quality have

also been forwarded and a similar collection of barriers to quality has also emerged, which have challenged initiatives to institute quality of education in several countries. Quality education is historically and socially situated in a context made up of the social economic status of the community, cultural and religious factors and educational knowledge and supportive infrastructure. Teachers, students and the overall policies of governments should be participants in the structure and operation of the education system in a country or state. Governments are held accountable for progressive realization of the right to quality education for all citizens (UNESCO, 2010).

UNESCO (2009) refers to quality education as an improvement of all aspects of learning and ensuring excellence so that recognizable and measurable learning outcomes are achieved by all learners and being able to accommodate others that are necessary for responsible living.

According to Newton (2002), quality is a ‘contested’ issue. There are a number of both complementary and contradictory interpretations of quality. For instance (Lomas in Taylor and Francis 2005) argued that there are two major approaches to quality assessment: quality assurance and quality enhancement’. In his view, quality assurance is oriented mainly towards the product or service being of good standard. It is a ‘preventative’ measure, which is ‘regarded as a means of improving overall quality’ and it relates to the notion of ‘fitness for purpose’. Quality enhancement, on the other hand, is ‘directly concerned with adding value, improving quality and implementing transformational change’. In relation to an individual academic, this concept is ‘based on the premise that they want their students to do well’ (Lomas, 2000).

Adding to Lomas’ argument, Jones (2003) outlined several dichotomies when approaching higher education quality: One views quality improvement at the macro or higher institute level, another focuses at the micro or educational-delivery level. One sees quality assessment as an administrative ‘check-off’, the other sees quality as a continuous improvement in educational delivery. One values quantitative measures to demonstrate quality, the other values qualitative measures. Jones argued that there is a need for integration of these dichotomies, so that quality improvements at the educational-delivery

level would complement and be reflected at the higher institute level.

Green (1994) also highlighted the multi-dimensionality of quality. She further suggested that quality is an elusive term, and that, 'we all have an instinctive understanding of what it means but it is difficult to articulate'. She also argued that quality is 'a value-laden term: it is subjectively associated with what is good and worthwhile'.

Harvey, Green and Burrows (1993) further highlighted that quality is 'stakeholder' relative, and the best that can be achieved in that sense 'is to define, as clearly as possible, the criteria used by each interest group when judging quality.

## **2.2 Assessing quality**

As Douglas C. Bennett (2001) assessing quality is simply to measure:-

The outcomes of a higher education: evaluate students as they graduate (or shortly after) on the skills and capabilities they have acquired or the recognition they gain in further competition. Several of the indicators employed by USNWR measure an institutions' inputs. First, USNWR gathers data about a college or university's financial resources. It measures how much an institution spends, on instruction. Colleges which charge more in tuition or which have larger endowments (or both) rank higher because of these measures.

A second data gathered by USNWR concerns an institution's faculty resources: the average salary of its faculty members, the percentage of its faculty members who are full time, the percentage of its faculty with highest degrees in their field, its overall student/faculty ratio, and class size.

These input measures are at best a look at what might be ingredients of quality. Whether more resources translates into better education for students depends on whether the resources are used well and wisely.

Processes and participation rates: to assessing quality in higher education asks students to report what they actually do while they are in college what they engage in (Douglas Bennett, 2001). The process or activity is closely associated with student learning. Rather than trying

to measure value added directly for each student, the intent is to measure whether students are educated through processes add value to students' attainments.

### **2.3 Models of Quality As Applied to Education**

The multi-dimensional nature of quality of education, as evidenced in the various definitions opens up several models for analyzing the quality of education. It is not easy to say which model of analyzing quality of education is best since all seem to have significance and the best option may be to blend the models. Quality Assurance; are among well known models of quality in education.

#### **2.3.1. Quality Control**

Wadsworth, *et al* (2002) stated that “Quality is the original and most basic term for the application of quality principles.” Wadsworth, *et al* (2002) define quality control as, “...the regulatory process through which we measure actual quality performance, compare it with standards, and act on the difference.” .As a result of its emphasis on performance, the model has the following weakness. First, it draws a lot of internal costs of failure or wastages especially when the students are not perform well. The other weakness of this approach is that quality becomes a concern only for inspectors. In a school system if quality becomes only the concern of school inspectors, it cannot be achieved as inspectors are not involved in the day to day teaching and learning activities .Quality control is thus not a sufficient strategy for ensuring quality. There is a need to assure quality in the process rather than merely check for it in the output. In spite of its shortcomings, quality control laid down the bases for recent quality models. In supporting to this Bell, *et al* (1994) maintains, “Quality control may be viewed as a subset of quality assurance.”

#### **2.3.2. Quality assurance**

Sallis (1996) says, “Quality assurance is broadly prevention of quality problems through planned systematic activities (including documentation).” Wadsworth, *et al* (2002) say quality assurance is a system of activities whose purpose is to provide an assurance that the overall quality control is in fact being done effectively. UNESCO (2012) clearly agrees with these views by arguing that quality assurance is, “The totality of systems,

resources and information devoted to maintaining and improving the quality and standards of teaching, scholarship and research, and of the students' learning experience." This involves an audit of the system and its key operations as well as establishing a good quality management system. This view is supported by Sallis (1996) who says of quality assurance, "It is a before and during the event process." Both authors agree that the focus of quality assurance is the prevention of defects rather than the identification of the defects when they have already occurred. Quality assurance is thus a way of managing quality by ensuring that quality is designed into the process rather than the product, and thus the costs of rectifying defective outputs is substantially foregone.

**Quality Assurance**-means the sum of activities that assure the quality of products and services at the time of production or delivery. Quality assurance procedures are frequently applied only to the activities and products associated directly with the goods and services provided to external customers (Ronald, 2001).

In order to provide 'quality' of higher education, quality assurance is necessary. In this article, quality is defined as 'fitness for purpose' and quality assurance is defined as 'those systems, procedures, processes and actions intended to lead to the achievement, maintenance, monitoring and enhancement of quality' (Woodhouse, 1998,). Quality assurance for higher education systems has become an important issue worldwide, instigating collaborations among quality assurance agencies at international and regional levels.

Furthermore, higher education institutions need to assure a standard quality of service to sustain in the market they operate in. These institutions are now considered as service centers like other profitable and non-profitable organizations, which can segment and target markets based on the dimensions of higher education quality. Recent studies identified the dimensions of quality higher education as quality of students, faculty credentials, academic features, and administrative supports (Akareem & Hossain, 2012; Ashraf, Ibrahim, & Joarder, 2009). Therefore, this research will assess the quality of education and training based on standards/indicators of education quality in federal technical and vocational education and training institute.

## **2.4 Quality Standards and Indicators in Education**

### **2.4.1 Quality Standards in Education**

As stated by different scholars that welfare, prosperity and security of a nation depends upon the quality of the education system prevailing in that country. The better the standards of education the better will be the position of the prosperity of the nation. In the present age of science and technology, the advanced and developed nations are dominating in the world only due to their latest knowledge (Harvey and Knight, 1996).

The methods of measuring standards and how standards relate to the different concepts of quality are the cornerstones of educational institutions. Standard is a word used to denote both excellent and ordinary being both an identification of uniqueness and a measure by which conformity is judged. According to Knight (1996), the term 'standard' in education tends to be elusive. Nonetheless, it usually relates to three areas of activity; academic standards, standards of competence and service standards.

### **2.4.2. Indicators of Education Quality**

According to Dare. (2005), there are three education quality indicators which are used to assess a quality characteristics or the achievement of quality objectives. The three aspects of quality indicators are input, process and output. For this we can see the definition and conceptual analysis of the three aspects of quality indicators

#### **2.4.2.1 Input**

##### **A. instructors/teachers and leaders**

Africa faces a severe shortage of suitably qualified and experienced teachers (UNESCO, 2008). However, evidence suggests that initial teacher education and training and experience has a significant impact on achievement (Michaelowa 2001; Smith and Barrett 2010). Evaluation of existing teacher in-service programmes and the challenge of training new and existing teachers for Education for all (EFA) has led to calls for more school-based

teacher education and professional development (see O'Sullivan 2001 for example; Dladla and Moon, 2002; Lewin and Stuart, 2003). A major finding across the EdQual projects is that for training to impact positively on outcomes for disadvantaged learners it needs to be consistent with the demands of the curriculum. It must focus on improved pedagogical practices including the use of 'structured pedagogy' effective teaching of language and literacy in multilingual settings (Ofitskanad Clegg, this issue); effective use of ICTs to support learning (Rubagiza, et al. 2010), and strategies to promote inclusion (Barrett, Ali et al. 2007).

Many African countries also face a crisis in teacher morale. Within a human capital framework, the issue is addressed through the introduction of incentives and accountability mechanisms to improve learning and enhance equity; and strengthen the use of regional, national and school-level assessments to support policy design aimed at these same ends (Muralidharan and Sundraraman 2006; Hanushek and Womann 2008). A major finding of the EdQual projects is that where teachers and head teachers have been empowered to identify and act on issues of quality through forms of professional development they have been motivated to do so (Bosu, Dare et al. forthcoming).

Leon Tikly (2010) EdQual research has underlined the importance of school leadership in implementing education quality. Successful leadership requires a shift in the traditional role of head teachers in Africa as custodians of property to leaders of learning. Successful head teachers focus on mobilizing resources, using resources such as ICTs efficiently, developing and motivating staff, maximizing time on task. They also play a key role in promoting inclusion and implementing girl friendly approaches (Bosu, Dare et al. forthcoming). A key recommendation to come out of the EdQual project is that head teacher training should be mandatory for head teachers in Africa (Oduru and Bosu 2010).

## B .Infrastructure and resources

Textbooks play an important role in raising learner achievement (Barrett, Ali et al. 2007; Yu 2007). Textbooks are critical for supporting the teaching and learning process, particularly in disadvantaged contexts and where teacher subject knowledge is limited. A key challenge is the avoidance of corruption and mismanagement of resources that can prevent the right textbooks reaching disadvantaged learners (UNESCO 2008). EdQual

research has drawn attention to the fact that if textbooks and other learning materials are to be effective they need to be appropriate to the environment and to the cognitive level and the language of the learner and accompanied by teacher training in their use.

Investing in infrastructure and resources can impact on achievement of disadvantaged learners (Smith and Barrett, 2010). A key challenge for policy makers is to ensure that funding is sufficient to meet need and is efficiently distributed to schools. A key issue according to head teachers surveyed by EdQual is the overall size of the grant and inefficiencies in its administration (Dare, Atakpa et al. 2010). A related issue is to ensure that the funding is targeted at disadvantaged learners (Smith and Barrett, 2010). A further challenge is to ensure that once resources are available in schools that they are used effectively in a way that promote teaching and learning.

According to Dare (2005) input refers to the availability of material and human resources. These are Educational Personnel, Instructional Content and Materials, Educational Facilities pupil and teacher furniture (tables and chairs), places of convenience water, materials that support teaching and learning, the type, quality and quantity impact significantly on the quality of education and Educational Finance.

According to Dare (2005) an important input that comes along with all the other inputs is finance which are categorized as capital and recurrent expenditures. Constructions of classroom buildings constitute one of the major capital expenditure of education. While salaries, particularly of teachers represent the most important aspect of recurrent education expenditure.

#### 2.4.2.2 Process

Implementing a good quality education requires that policy making is informed by processes of dialogue, consultation and debate both within the state and between the government and interest groups including teachers and teacher unions, non-governmental and community organizations representing parents and other interests with a stake in education. A characteristic of education policy in countries that have successfully integrated into the global economy is that there has been a good match between education priorities and outcomes and changing labour market needs facilitated by processes of inter-governmental

dialogue (Green, Little et al. 2007).

As Tikly (2010), Access to a good quality education has been an historic demand of anti-colonial movements on the African continent. In many postcolonial African countries as elsewhere, policy making has remained the preserve of economic, social and cultural elite. Key interest groups such as teachers and their organizations have often not been consulted and in some cases have been actively discouraged from participating in the policy making process. Yet, engaging the perspectives and experiences of educational professionals in decision making is particularly important in closing the implementation gap because of their role as change agents in schools (DfID and VSO, 2008 in Tikly). It is important that policy makers as well as non-governmental and community organizations are aware of the processes and mechanisms by which policy relating to education quality is determined and how these reflect different interests within the state and civil society.

#### **A. Assessment, monitoring and evaluation of quality.**

Developing policy relating to education quality involves consideration of the quality gap in education both between and within countries and of the nature and extent of educational disadvantage. Monitoring the quality of education presents particular challenges for researchers. As Unterhalter (2007), for example, has drawn attention to the difficulties associated with existing Education Management Information Systems (EMIS) related to the unreliability of data and to the potential of more participative approaches to collecting relevant data such as those used by NGOs, where the process as well as the data itself can be used to evaluate capabilities. Reading and Literacy Study (PIRLS) can provide information about existing levels of quality in national systems although caution is needed in interpreting data (Barrett 2009). A key priority is to strengthen national systems of assessment, monitoring and evaluation including making available longitudinal data relating to schools and individual pupils. These can assist in identifying trends in achievement over time and can play an important diagnostic role in identifying strengths and weaknesses in the system, highlighting groups at risk of underachieving and areas for possible intervention. At the level of the school, EdQual research has highlighted the importance of making use of data as part of school self-evaluation and the importance of local support for schools in interpreting data and implementing change (Bosu, Dare et al. forthcoming).

## **B. A relevant and inclusive curriculum and pedagogy.**

EdQual research has emphasized teacher subject knowledge in implementing mathematics and science education and the importance of coherence in aims and content within and between phases of the curriculum (Barrett, Ali et al. 2007). Pedagogy has increasingly been seen to lie at the heart of the debate about quality (Barrett, Ali et al. 2007). For example the World Bank led Fast Track Initiative (FTI 2008) has supported a range of interventions to support reading although these have yet to be evaluated. Within a rights based approach, the debate focuses on conceptions of learner-centeredness. EdQual research has highlighted that successful initiatives share characteristics of „structured pedagogy“ i.e. they promote careful planning of lessons, with a clear introduction that links to the previous lesson and sets out learning objectives as well as use of formative assessment. They often encourage teachers to make use of a range of strategies including talking to the whole class from the front, question and answer with the whole class, individual exercises or reading, group discussion and practical activities depending on their context, learners“ needs and subject matter.

A key issue relating to the accessibility of the curriculum is that of the medium of instruction used in schools. Regular use of the medium of instruction in the home and community environment is a good predictor of achievement (Smith and Barrett 2010). Issues relating to language and cultural identity are rarely acknowledged within a human capital framework although they are more so within rights based approaches (Tikly and Barrett forthcoming). Faced with conflicting perspectives and complexity, African countries are increasingly adopting a phased bilingual or even trilingual approach, favoring indigenous languages in the early years and global languages such as English in the later years (Heugh 2005). EdQual research has highlighted the reality that in many African classrooms a mixture of languages are used for teaching and learning and has focused on developing practical strategies for using more than one language in the classroom.

## **C. Quality Content**

Quality content refers to the intended and taught curriculum of schools. National goals for education, and outcome statements that translate those goals into measurable objectives,

should provide the starting point for the development and implementation of curriculum (UNICEF, 2000).

Finally as Dare (2005) the process component of the quality of education relates to many aspects as trainer-trainee interaction in class management and control and daily time-on-task with the class and workshop. It also concerns the regularity and punctuality of the teacher in the school for instructional activities. It also includes the intensity of operation which has to do with length of the school day and term, how many days are effectively available for school work in a term.

#### **2.4.2.3. output/outcomes**

As Aamodt. al. (2007) in Per O. Aamodt& Elisabeth Hovdhaugen, NIFU STEP (2008). The concept “learning outcomes” is ambiguous since it has two different, but still related meanings, these are:-

As a measurement of what student actually have learn during their studies. As statements of what students are expected to learn during their studies

One may say that the attempts to construct and formulate higher education learning outcomes are responding to two different, yet related needs. First: to lay the ground for mobility and mutual recognition in a globalized market for education and graduates. Second: as an attempt to improve the employability of graduates (Ecclestone, 1999).

The output of educational service which constitutes the immediate evidence of quality is the achievement of students in examinations (Dare,2005).According to Dare one indicator of schooling quality is students’ scores on internationally, standardized or nationally comparable tests of achievement in knowledge, skills, behavior, and attitudes.

### **2.5. Quality Education and its Indictors in Ethiopia**

Education is a key investment in any country with enormous social and economic benefits accruing from it. The development of any country in the 21st century will be determined by the level and growth of its human capital which investment in education forms a major component.

In Ethiopia, UNICEF' (2002) Studied and stated some points in relation to education quality include basic education for school-age children, female education, technical and vocational education and training, efficiency, equity and access, and decentralization. The pupil/teacher ratio was slightly below 60.1. Growth in enrolment was affected by a shortage of teachers, textbooks and lack of space in existing schools. UNICEF (2000) recognizes five dimensions of quality: learners, environments, content, processes and outcomes.

The decline of quality education affect against the success of the program of education for all (EFA) in Ethiopia as measures to refocus on quality created constraints for the people' access to education (*UNESCO, 2010*).

## **2.6 Barriers to Quality of Education**

As different educators stated the journey for quality is not a smooth path, nor is it a straight forward one. To the contrary, there are several barriers that the quality planner in education must overcome. Granted removing these barriers completely may not be feasible, but an effort must be made to minimize their adverse impact on the school system. If no effort is made to control for the effect of these barriers, the internal efficiency of the school system will be very low resulting in a waste of already-scarce resources. Hence it is important that these barriers are clearly understood before they are tackled.

UNICEF (2002) identifies five categories of barriers to quality of education. These are: household barriers; policy barriers; infrastructure barriers; community beliefs and practices, and educational barriers. Each of these barriers has a high potential of compromising the internal efficiency of the school system and thus eroding the quality of education offered. Apart from these categorized barriers there is a wide range of conditions for failure. These conditions either act as barriers in themselves or they promote adverse effects of the barriers.

### **A. Policy Barriers**

Policy barriers also affect the quality of education. The first policy issue is insufficient

national budget to enable the crafting and implementation of whatever policies may be deemed fit for the development of the quality of education. Developing countries are characterized by shortage of resources. This view is appropriately observed by Natarajan (1993).

Policies to do with curriculum formulation also act as a barrier. It can be argued that even in those countries where access to education has significantly been expanded, the curriculum is still largely a mirror image of the pre-independence curriculum. Natarajan (1993) says, "Education is not related to real life situations. It is not an equalizer, but acts as a stabilizer and promoter of social inequalities. Education is not linked to productivity and is not backed by a sound philosophy." This tends to reduce the retention capacity of the school system leading to a lot of waste. Even those who stay through the school program are not worthwhile contributors to national development, afterwards.

#### B. Infrastructure Barriers

According to Natarajan (1993) the 3rd barrier is infrastructure-barriers. Particularly, rural areas are sparsely populated forcing schools to be sited far apart from each other. Poor school facilities also compromise the quality of education, especially in rural areas where classrooms, laboratories and libraries are scarce.

#### C. Community Beliefs and Practices

According to Natarajan (1993) community beliefs and practices also act as barriers to quality of education. These can manifest themselves in the form of gender discrimination, where in the face of limited resources female students are sacrificed.

#### D. Educational Barriers

Educational barriers are such variables as teacher qualifications, teacher performance, conducive school climate, and poor management styles all adversely affect quality efforts. In fact these variables define the operational process that dictates the quality of education offered in a school.

Sallis (1996) says causes of quality failure fall into common causes and special causes. Common causes are attributed to systems' failure and manifest themselves through unsuitable systems, procedures and processes, insufficient staff development, and faulty timetabling. Special causes are generally external to the organization and would be covered under the four other barriers discussed above some barriers to quality of education are born out of the very efforts to plan for quality. Kanji (1995) argues that some of the pitfalls in implementing a quality program include stereotypes and pushing

down programs. Poor identification of training needs and overloading the training program, as well as failing to build the requisite culture and philosophy can largely derail a quality program.

### **General Conditions for Failure**

Greenwood and Gaunt (1994:65) raise the following as conditions for failure in a quality drive. These conditions of failure if not corrected pose barriers to the provision of quality of education. Before quality can be installed it must be ascertained that these conditions are absent.

- Lack of cooperation across departmental boundaries and between academic and administration staff;
- Departmental imperialism in pursuit of resources, and promotion;
- lack of communication;
- Isolation and fear of cooperation amongst instructors/teachers;
- Excessive and proliferating bureaucracy;
- Absence of coherent training and staff development program; and
- Appraisal systems designed to manage by fear, rather than increase self-esteem and skills.

This list of barriers to quality of education is by no means exhaustive. Rather it highlights some of the common sources of quality failure. Understanding these generic barriers helps to chart away towards improving the quality of education.

Implications drawn from this case are that quality of education can be enhanced by breaking down barriers in instruction, especially in training related to life skills.

### **2.7. Analysis of review**

Implications drawn from this reviewed earlier in this study are that quality of education and training can be assessed by standards and indicators of input, process and output. In Ethiopia, (UNICEF, 2002) Studied and stated some points in relation to education quality include technical and vocational education and training, efficiency. The quality of education was affected by an inadequate supply of curricular materials and a shortage of classrooms, desks, and teachers.

From the definitions of quality of education reviewed earlier in this study there is no one indicator guarantee for quality. There are a range of indicators which individually are necessary, but are not sufficient indications of the presence of the quality of education. Thus, quality of education becomes a matter of degree of the presence of the indicators including inputs, process, and outputs of the institute in addition to academic development of trainees with the leader's perspective about quality and the attention that he or she gives this issue will drive everything that happens in the institute. Change in leadership is one of the most clearly understood factors in both the decline and improvement of quality, and in how the institute decides to focus on quality in all sectors.

Leadership, in the context of higher education, includes directors, division heads, general directors and board members of the institute. Many accrediting programs are relatively silent on the issue of leadership, simply requiring that the governing board is not too involved in operational issues and that the chief executive receives a periodic performance review. Regarding to this review leadership, Inputs, processes and outputs are the major educational elements to address quality issues. Therefore the researcher collect information to check quality of education and training based on thus indicators in federal technical and vocational education and training institute.

## **CHAPTER THREE**

### **3. Research design and methodology**

This chapter presents the research design and methodology. It describes and justifies the sources of data, population and sampling procedures of the study. It also describes the data collection instruments and how the data were actually collected. Finally it describes the data analysis procedures used in the study.

#### **3.1. Research Design**

The purpose of the study is to assess the status of quality of education and training in federal technical and vocational education and training institute. So a descriptive survey study was employed with the assumption that it helps to determine the existent of

relationship between the variant and criterion variables. The magnitude of relationship was determined through the use of the frequency. Descriptive survey research method was employed to collect information concerning the existing status of quality of education and training in the study area and to draw valid general conclusions, in order to identify and analyze the existing conditions of quality of education and training. Besides, qualitative research method was employed as a supplementary to the study to the information collected by semi structure interview from directorates and division heads in the form of open ended questions to triangulate data.

### **3.2. Source of Data**

The necessary data for the study were collected from both primary and secondary sources. Primary sources refer to individuals or organizations from which information has originated directly as a result of the particular problem under study. Thus, the primary sources in this study include trainers/ teachers, the institute administrators and trainees. The selection of these participants as a source of data was based on the expectation that they had better information and experiences with respect to the study topic. The secondary sources comprise government policies and relevant documents, project file, various types of plans, organizational charts, statistics, procedure manuals, training manual and supervision report.

#### ***3.2.1. Primary data***

The primary sources of data for this study was generated from questionnaire and interview. Questionnaire was prepared to collect information from trainers/ teachers/ teaching in under graduate program, institute administrators and trainees. Interview was prepared to collect information from institute administrators (directorates and division heads).

#### ***3.2.2. Secondary Data***

Secondary data were obtained from document review and from grade reports of under graduate trainees.

### **3.3. Population, Sample Size and Sampling Techniques**

#### ***3.3.1. Population***

This study was conducted in federal technical and vocational education and training institute. The institute consists of 6 directorates, 110 trainers, 5 divisions' fifteen departments' and 1947 trainees in undergraduate programs. Researcher has selected 5 (33.3%) departments trainees 627 sample frame. Total population 748 of the study area which categorizes as: 627 trainees, 6 directorates, 5 Division heads and 110 Trainers/teachers were included.

### 3.3.2. Sample size

To make it manageable researcher was selected 5 (33.3%) departments trainees 627 sample frame for the study by stratified random sampling, then from 748 total population of the study area which categorizes as: 627 trainees, 6 directorates, 5 Division heads and 110 Trainers/teachers the researcher has selected samples among population of 627 trainees 195 (31.2%) and from 110 trainers of population 35 (31.8%) as representative sample by stratified sampling technique and simple random sampling technique respectively. Besides, the researcher has selected 6 directorates and 5 division heads by availability sampling technique, because their number is manageable for the research. Generally, the researcher has selected 241 (32.36%) representative sample for the study see fig 1 bellow.

Fig 1. Stratum of population

Division	BATCH 2008 E.C. trainees			BATCH 2009 E.C. trainees			Total trainees			Trainers			directorates			Division heads			Total		
	P	S	%	P	S	%	P	S	%	P	S	%	P	S	%	P	S	%	P	S	%
Division of Civil Technology	163	49	30	171	52	30.4	334	101	30.2										334	101	30.2
Division of Civil Technology	49	16	32.6	26	8	30.7	75	24	32										75	24	32
Division of Mechanical Technology	50	16	32	42	14	33.3	92	30	32.6										92	30	32.6

Textile & Apparel fashion Technology	24	8	33.3	26	7	31.8	50	15	32										50	16	32
Division of Electrical/Electronics and ICT	57	19	33.3	19	6	31.5	76	25	32.8										76	25	32.8
<b>TOTAL</b>	<b>343</b>	<b>108</b>	<b>31.3</b>	<b>284</b>	<b>87</b>	<b>31</b>	<b>627</b>	<b>195</b>	<b>31.2</b>	<b>110</b>	<b>35</b>	<b>31.8</b>	<b>6</b>	<b>6</b>	<b>100</b>	<b>5</b>	<b>5</b>	<b>100</b>	<b>748</b>	<b>241</b>	<b>32.3</b>
Sampling Technique	Stratified random sampling			Stratified random sampling			Simple random sampling			simple random sampling			available			available					

Source: from documents of the divisions in 2008 E.C and 2009 E.C

NB: P= population, S=Sample, %=percentage, ST=sampling techniques.

### 3.4. Data Gathering Tools and Procedure of data collection

Data were collected by using questionnaire and interviews. In addition, document and supervision reports were used to get better findings of the study.

### **3.4.1. Questionnaires**

Questionnaire was used to gather the appropriate information about three key pillars of quality education and training such as: -input, process and output specifically:- ensuring access to quality trainers/ teachers; providing use of quality learning tools and the establishment of safe and supportive quality learning environments. Questionnaire was set for trainers, directors, division heads and trainees for quantitative degree of expression. These questionnaires were structured with closed ended for trainers and trainees; closed ended and open ended type for directors and division heads. Open ended questionnaires were employed to express their feelings, perceptions, problems and intensions of quality. In accordance with suggestion from these samples and modification was made on the errors that was identified from sample tested. After all questionnaires were collected, I was tallied it.

### **3.4.2. Interview**

The interview permits greater depth of response about quality education and training key pillars: ensuring access to quality trainers/ teachers; providing use of quality learning tools and professional development; and the establishment of safe and supportive quality learning environments which is not possible through any other means thus, the purpose of the interview was to collect more supplementary opinion so as to stabilize the questionnaire response. With this in mind, interview was conducted with 6 directorates and 5 division heads. The reason behind the semi-structured interview items was the advantages of flexibility in which new questions could be forward during the interview based on the responses of the interviewee.

The directorates and division heads were selected for interview. Because, they are small in number and their position is important in describing the quality of education and training based on input, process and output factors in federal technical and vocational education and training Therefore, they could have detail information about the current status of quality education and training .Those were help the researcher to get more and significant

information. Directorates and division heads were interviewed individually in order to get their qualitative degree of expression.

### **3.4.3. Document analysis**

Supervision report and student grade report is source of data, so researcher has observed it and calculated the evidence by focusing in key indicators. This helped researcher to interpret and triangulated the findings.

### **3.5. Validity and reliability of data gathering**

The use of triangulation is for the purposes of reducing bias that may be inherent in a particular data source or method of construction Kothari (2004). It is for this reason that there is interchangeable use of qualitative and quantitative designs as a triangulation approach. Bias is minimized through this due approach and conclusions drawn that would be the springboard for further studies. The sample size and study population among others are all carefully set to ensure utmost representation of the variables under the study thereby increasing the validity and reliability of the constructs studied. Moreover, in order to enhance the validity and trustworthiness of the study, various instruments of data collection are used. The data are collected;

1. Through questionnaires
2. Through an in depth interviews
3. Referring to files, reports and the documents

### **3.6. Methods of data analysis**

In this study, quantitative and qualitative methods was employed to analyze the information collected from different data collecting instruments from the aforementioned sources. The responses obtained from close-ended types questionnaires are analyzed using percentage by the help of tables. Data gathered from, interviews questions were narrated qualitatively. Generally, the data obtained during the study are organized, sorted, analyzed and interpreted by using percentage and tables.

### **3.7. Ethical considerations**

In this study, researcher has informed my participant's honesty and openly regarding the

aim of the study and the participation in the research is voluntary and they shall withdraw from the research at any time. Researcher has also looked at most cared to secure anonymity and confidentiality of the views and perspectives of my research participants

## **Chapter Four**

### **4. DATA PRESENTATION, ANALYSIS AND INTERPRETATION**

#### **4.1. Introduction**

This chapter deals with data presentation, analysis and interpretation regarding assessment of quality of education and training. To ascertain and analyze the quality questionnaires were prepared and distributed to 241 sample respondents to gather primary data for the current survey. Out of the total 241 questionnaires distributed 205 (88 %) were filled and returned whereas 36(18%) were not returned. Thus, the analysis of this study was made by taking into account 205 respondents altogether.

The findings of the study are presented in this chapter. The chapter is divided into 5 sections. The first is introduction, the demographic characteristics of the respondents are presented in the second section. From sections three to 5, the analyzed data, results and discussions of the findings are presented according to the research questions. Data analyses and interpretation hinged on the purpose of the study which was to assess the quality of education training provided by Federal technical and vocational education and training institute that focuses on four dimensions of quality education & training, namely; the inputs, processes, management competency and outcomes. The study sought answers to the following four research questions:

1. To what extent do the input factors influence the quality?
2. How much the practical and theoretical method of teaching and training integrated with cooperative training?
3. To what extent does the competency of managers of the institute influence the quality of education and training?
4. To what extent do the academic qualifications of instructors influence the quality?

#### **4.2 Background of the respondents**

In order to provide a clear image about the subjects involved in the study, some of their major characteristics are represented.

**Table 1:** Characteristics of the respondent

No	Items	Directors		Division heads		trainers		trainees		total	
		No.	%	No.	%	No.	%	No	%	No	%
1	Sex										
	Male	6	100	5	100	29	82.85	131	82.38	171	83.4
	Female					6	17.14	28	17.6	34	16.58
2	Qualification										
	diploma							159	100	159	77.56
	BA/BSC	2	33.33			2	5.7			4	1.95
	Master	2	33.33	4	80	31	88.57			37	18
	PhD	2	33.33	1	20	2	5.7			5	2.4
3	Age										
	<21										
	21-25					4	11.4	-	-	4	8.88
	26-30					13	37.14	-	-	13	28.88
	31-35	1	16.66	3	60	14	40	-	-	18	40
	36 -40	2	33.33	2	40	3	8.57	-	-	7	15.55
	41-45	2	33.33			1	2.8	-	-	3	6.66
	46 and above	1	16.66								
4	Work experience										
	0-10			3	60	24	68.57			27	58.69
	11-20	4	66.66	2	40	8	22.85			14	30.43
	21-30	2	33.33			3	8.57			5	10.86
	Above 30 years										

As shown on the above table1, all the directors and division heads are male. This implies

that there is no female directors and division heads in the institute. The majority of the trainers are male. These 29 (82.85%) of the trainers are male whereas, 6(17.14%) are female teachers. This indicates that the number of female trainers is by far less than that of male trainers. 131 (82.38%) of the trainees are male and 28(17.6%) are female. This also indicates that the number of female trainees is by far less than that of male trainees

Regarding qualification, 2(33.33%) directors and 2(5.7%) trainers are first degree holders; 2(33.33%) directors, 4(80%) division heads, and 31(88.57%) trainers are second degree holders, and 2(33.33%) directors, 1(20%) division heads, and 2(5.7%) trainers are PhD holders. At ages of the respondents, between age group 20-25 4(11.4%) of trainers; between age group 26-30 13(37.14%) trainers; between age group 31-35 1(16.66%) of directors, 3(60%) of division heads and 14(40%) trainers; between age group 36-40 2(33.33%) directors, 2(40%) division heads and 3(8.57%) trainers; between age group 41-45 2(33.33%) directorates and 1(2.8%) trainers; finally 46 and above 1(16.66%) director. This implies that most of trainers and division heads in the institute are in the age of young hood; and most of the directors are above 35 years. But it does not necessarily mean that being young by itself is a guarantee for effectiveness in implementing an educational program. Concerning the working experience 3(60%) division heads and 24(68%) of teachers/trainers have between 0-10years' work experience. Thus, teachers/trainers may lack knowledge which is obtained from experience. Meanwhile, 4(66.66%) of the directors and 2(40%) division heads have work experiences between 11-20 and 2(33.33%) of the directors and 3(8.57%) of trainers have between 21-30 years experiences. Of the total sample respondents, 6(2.9%) are directors, 35(17%) are teachers/trainers, 5(2.4%) are division heads and 159 (77.5%) are trainees. The number of trainees' is made bigger than the other groups because their target population are bigger compared to those of the other groups. Furthermore, the idea was necessary for consistency checking since trainees are not used to interviews.

### **4.3. Analysis of the assessment of the quality of education and training in federal technical and vocational education and training institute**

**4.3.1.** To what extent do the input factors influence the quality (assessment of Education and training resources?)

**Table 2:** Teachers/trainers and trainees’ responses on Input related issues

No	Indicators(Items)	Teachers/Trainers Responses										Trainees Responses									
		SA		A		UD		DA		SDA		SA		A		UD		DA		SDA	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1	The institute has appropriate training resources	2	5.7	10	28.5	2	5.7	11	31.4	10	28.5	34	21.3	42	26.4	3	1.9	50	31.4	30	18.8
2	The institute has a safe, well-maintained learning environment	6	17	17	48.5	2	5.7	8	22.8	2	5.7	18	11.3	32	20	5	3.1	75	47.1	29	18.2
3	The institute has appropriate, well-designed curriculum	5	14.3	10	28.5	1	2.8	10	28.5	9	25.7	13	8.1	19	11.9	4	2.5	71	44.6	52	32.7
4	The institute has developed quality assurance policies	2	5.7	2	5.7	1	2.8	17	48.5	13	37.1	24	15	16	10	8	5	81	50.9	30	18.8
5	The trainees have required knowledge of instructional language	-		2	5.7	1	2.8	10	28.5	22	62.8	18	11.3	60	37.7	5	3.1	45	28.3	31	19.4

NB SA=strong agree A= agree UD= undecided DA= disagree SDA= strongly disagree

**Table 3:** directors and division heads responses on availability of resource s

No.	Items	Directors responses										division heads responses									
		SA		A		UD		DA		SDA		SA		A		UD		DA		SDA	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1	The training materials available enough	-	-	4	66.6			2	33.3			-	-	-	-	1	20	4	80		
2	The institute establish safe and supportive quality learning environments	-	-	4	66.6	-	-	2	33.3					3	60	-	-	1	20	1	20
3	The institute has quality trainers/ teachers	-	-	2	33.3	-	-	3	50	-	-	-	-	2	40	-	-	3	60		
4	The institute has developed quality assurance policies			1	16.6	2	33.3	3	50					1	20			1	20	3	60

NB SA=strong agree A=agree UD =undecided DA=disagree SD=strongly disagree

Based on table 2 and table 3, the five scales of measurement have been condensed into two for more clarity and easy analysis and interpretation. Strongly agree and agree are condensed into agree and strongly disagree and disagree are condensed into disagree.

Item 1 in tables 2 and 3 is related to education and training facilities. The results in table 2 and 3 indicate that all selected respondents responded differently about educational and training facilities/training resources. 21 (60%) of trainers, 80 (50.2%) of trainees, and 4 (80%) of division heads respond that their institute has no enough facilities. The overall responses of trainers in percentage about education and training facilities still falls 21(60%) in disagree. Similarly, 80(50.2%) of trainees, 4 (80%) of division heads responses shown that their institute has no enough resources. However, 4(66.3%) of the directors do not accept this ideas. Directors argue that the institute have the necessarily resources. Item 2 in tables 2 and 3 is related to the institute have A safe, well-maintained learning environment .The results in table 2 and 3 indicate that all selected respondents responded differently about the institute has A safe, well-maintained learning environment. 21 (65.5%) of trainers agree, 4 (66.6%) of directors and 3 (60%) of division heads agree respond that their institute have safe, well-maintained learning environment; But 104 (65.3%) of trainees disagree on this. Item 3 in table 2 is related to the institute has Appropriate, well-designed curriculum and strategies. The results in table 2 indicate that 19 (54.2%) of trainers and 123 (77%) of trainees disagree. Item 4 in tables 2 and 3 is related to quality assurance policies. The results in table 2 and 3 indicate that most selected respondents response were disagree on the institute has developed quality assurance policies. 30 (85.7%) of trainers; 3 (50%) of directors; 4(80%) of division heads; and 111 (69.8%) of trainees disagree on this. Item 5 in table 2 is related to the trainees have required instructional language knowledge. The results in table 2 indicate that most selected respondents response were different on the trainees have required instructional language knowledge. 32 (91.4%) of trainers disagree; But 78 (49%) of trainees agree on this.

The data collected from open-ended questionnaires and interviews gave accompaniment evidence to this argument, directors and division heads clearly shown the problem during the interview (What are the barriers to the quality of education and training in the institute?). The response of this group’s respondents enumerated a number of problems such as trainees’ deficiency of instructional language knowledge, inappropriate use of time in both trainees and trainers large class size, very limited laboratory facilities, lack of latest books and project facilities. They said that these are the major chronic problems of education and training quality in their institute. From the responses of all above groups of respondents one can say that shortage of appropriate educational facility is affecting the quality of education and training offered in federal technical and vocational education and training institute. This is because lack of the availability of relevant facilities are limited the effectiveness of the trainers and trainees.

In support of this my observation of documents, all directors and division heads responses during the interview for question “to what extent the necessary educations facilities present in the institute?” indicated that the necessary education and training facilities highly insufficient.

Therefore, one can deduce that in federal technical and vocational education and training institute, lack of input (relevant and adequate education and training facilities) adversely affect the quality of education.

#### 4.3.2 Education and Training process

Table 4: Teachers/trainers and trainees’ responses on Process related issues

No	Indicators (items)	Teachers/trainers responses										Trainees Responses									
		SA		A		UD		DA		SDA		SA		A		UD		DA		SD	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1	50% theory and 50%practice training method properly employed	5	14.3	13	37	3	8.5	9	25.7	5	14.2	18	11.3	32	20.1	6	3.7	68	42.7	35	22
2	The Cooperative Training is	3	8.5	13	37	8	22.8	7	20	4	11.4	44	27.6	16	10	8	5	72	45.2	19	11.9

	employed as required																			
3	students/trainees are hardworking and enthusiastic (self-initiated)		2	5.75	14.2	17	48.5	11	31.4	40	25	52	32.7	45	28.3	16	10	6	3.7	

NB SA=strong agree A=agree UD =undecided DA=disagree SD=strongly dis-agree

Based on table 4 the five scales of measurement have been condensed into two for more clarity and easy analysis and interpretation. Strongly agree and agree are condensed into agree and strongly disagree and disagree are condensed into disagree.

Item 1 in table 4 is related to education and training Process related issues 50% theory and 50%practice training method. The results in table 4 indicate that all selected respondents responded differently about education and training 50% theory and 50%practice training method properly implied. 18 (51.4%) of trainers, and 50 (31.4%) of trainees agree; 14 (40%) of trainers, and 103 (64.7%) of trainees disagree. Item 2 in table 4 is related to education and training Process the Cooperative Training is employed as required. The results in table 4 indicate that all selected respondents responded differently about Cooperative Training is properly employed. 16 (45.7%) of trainers, and 60 (37.7%) of

trainees agree; 11 (31.4%) of trainers, and 91 (57.2%) of trainees disagree. Item 3 in table 4 is education and training Process related issues students/trainees are hardworking and enthusiastic (self-initiated). The results in table 4 indicate that all selected respondents responded differently about students/trainees are hardworking and enthusiastic (self-initiated). 2 (2.5%) of trainers, and 92 (57.8%) of trainees agree; 28 (80%) of trainers, and 22 (13.8%) of trainees disagree.

Even though, there is a difference in responses on item1, 2 & 3 between trainers and trainees, according to the institute 2009 E.C supervision report and from interview of directors and division heads, with question “What are the barriers to the quality of education and training in the institute”. It is possible to infer that there is serious problem in education and training process. Education and training Process related issues such as :-50% theory and 50%practice training method is not implement properly, The Cooperative Training is not implied as required and students/trainees are not hardworking and enthusiastic (self-initiated).

#### **4.3.3 To what extent does the competency of managers of the institute influence the quality of education and training?**

Management issues in this particular study address issues that have direct impact on quality of education and training process to ensure quality of output. The institute management plays a significant role in trainers’ effectiveness. One of the management roles is creating effective relations with trainers. If those relationships are not good they will have negative effects on trainers’ performance.

Table 5: Teachers/trainers and trainees’ responses on the competency of managers of the institute related issues

No.	Indicators (items)	Teachers/trainers responses	Trainees responses	
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		SA		A		UD		DA		SDA		SA		A		UD		DA		SD	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1	There is a good communication among teachers and the department head/coordinator in sharing and solving students/trainees problems.	7	20	12	34.2	3	8.5	7	20	6	17.1	26	16.3	25	15.7	13	8.1	37	23.27	58	36.4
2	The leadership show high commitment for education Excellence	4	11.48	8	22.8	2	5.7	15	42.8	6	17.1	13	8.1	26	16.3	4	2.5	63	39.6	53	33.33
3	The management of the institute evaluates the students' performance	2	5.7	6	17.1	4	11.4	18	51.4	5	14.2	24	15	32	20.1	9	5.66	62	38.99	32	20.1
4	The management rules and procedures are supportive to the teaching& training process	1	2.8	6	17.1	7	20	13	37	8	22.8	12	7.5	25	15.7	7	4.4	71	44.6	44	27.6

NB SA=strongly agree A= agree UD = undecided DA= disagree SD= strongly disagree

Based on table 5, the five scales of measurement have been condensed into two for more clarity and easy analysis and interpretation. Strongly agree and agree are condensed into agree and strongly disagree and disagree are condensed into disagree.

Item 1 in table 5 is related to competency of managers of the institute related issues. The results in table 5 indicate that all selected respondents responded differently about the existence of good communication among teachers and the department head/coordinator in sharing and solving students/trainees problems. 19 (54.28%) of trainers, and 51 (32.07%) of trainees agree; 13 (37.14%) of trainers, and 95 (59.7%) of trainees disagree. Item 2 in table 5 is related to competency of managers of the institute related issues. The results in table 5 indicate that leadership show high commitment for education Excellence. 12 (34.28%) of trainers, and 49 (30.8%) of trainees agree; 21 (60%) of trainers, and 116 (72.9%) of trainees disagree. Item 3 in table 5 is competency of managers of the institute related issues. The results in table 5 indicate that respondents responded differently about the management of the institute evaluates the students' performance. 8 (22.5%) of trainers, and 46 (28.9%) of trainees agree; 23 (65.7%) of trainers, and 94 (59.11%) of trainees disagree. Item 4 in table 5 is competency of managers of the institute related issues. The results in table 5 indicate that respondents responded differently the management rules and procedures are supportive to the teaching& training process. 7 (20%) of trainers, and 37 (23.2%) of trainees agree; 21 (60%) of trainers, and 115 (72.3%) of trainees disagree.

Even though, there is a difference in responses on item 1 between trainers and trainees, according to the institute 2009 E.C supervision report and my observation. There is gaps in sharing and solving students/trainees problems among the institute managers. indicate that

leadership do not show high commitment for education Excellence, the management of the institute do not evaluates the students' performance and the management rules and procedures are supportive to the teaching& training process

**Table 6:** directorates and division heads responses on Management Competency Issues

No.	Items	Directors										Division heads									
		SA		A		UD		DA		SDA		SA		A		UD		DA		SD	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1	The leadership show high commitment for education Excellence			3	50			3	50			2	40	2	40			1	20		
2	The management of the institute evaluates the students' performance			1	16.3	1	16.3	2	33.3	2	33.3	1	20	1	20			2	40	1	20
3	The management rules and procedures are supportive to the teaching& training process	1	16.3	1	16.3			3	50	1	16.3			2	40			2	40	1	20
4	The institute Supervision is periodically	1	16.3	3	50			2	33.3					3	60			2	40		

	done																			
5	The management allow teacher/trainers to participate in the academic decision		2	33.3			4	66.6			1	20	2	40	1	20	1	20		

NB SA=strongly agree A= agree UD = undecided DA= disagree SD= strongly disagree

Based on table 6, the five scales of measurement have been condensed into two for more clarity and easy analysis and interpretation. Strongly agree and agree are condensed into agree and strongly disagree and disagree are condensed into disagree.

As shown table 6, management issues in this particular study addresses issues that have direct impact on quality of teaching and training process to ensure quality of output. It constituted 5 different items on commitment for education Excellence/ qualification and competence to management/, rules and procedures are supportive to the teaching& training process /management rules and procedures/, Supervision is periodically done /evaluates the students' performance timely feedback/, and trainers to participate in the academic decision participatory decision making. The result in table 6 reveals that, responses of directors and division heads representing in agree for the first item commitment for education Excellence is answered to be the average and above the average. That is, 3(50%) directors and 4(80%) division heads agreed on the issue. On item 2 table 6 reveals that the variable performance indicator ( The management of the institute evaluates the students' performance ), agree responses of directors and division heads which is below average, 4(62.2%) responses of directors and 3(60%) responses of division heads disagree on issue is obtained as evidence from the data. Similarly item 3 table 6 reveals that the variable the management rules and procedures are supportive to the teaching& training process, agree responses of directors and division heads which is below average, 4(62.2%) responses of directors and 3(60%) responses of division heads disagree on issue is obtained as evidence from the data. Item 4 in table 6 is related to the institute Supervision is periodically done. The results in table 6 indicate that most selected respondents responded about the institute

Supervision is periodically done. 2 (33.3%) of directors, and 2 (40%) of division heads disagree; 4 (66.6%) of directors, and 3 (60%) of division heads agree. Item 5 in table 6 is related to the management allow teacher/ trainers to participate in the academic decision. The results in table 6 indicate that respondents responded about the management allow teacher/ trainers to participate in the academic decision. 2 (33.3%) of directors, and 3 (60%) of division heads agree; and 4 (66.6%) of directors, and 2 (40%) of division heads disagree. Even though, there is a difference in responses on item 5 between directors and division heads, according to the institute 2009 E.C supervision report it is possible to infer that there are problems in concerning to participate in the academic decision to solve problems of education and training process.

To sum up the analysis indicated that the institute management did not evaluates the students' performance and management rules and procedures are not supportive to the teaching & training process

#### 4.3.4. To what extent do the academic qualifications of instructors /trainers influence the quality?

**Table 7.** Teachers/trainers & Trainees responses on academic qualifications of instructors/trainers

No	Indicators (items)	Teachers/trainers responses										Trainees responses									
		SA		A		UD		DA		SDA		SA		A		UD		DA		SD	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1	Trainers used different training methodologies to develop trainees skill, attitude and knowledge	4	11.4	8	22.8	2	5.7	12	34.2	9	25.7	18	51.3	11	32.1	20	59.9	19	55.9	1	0.6
2	The institute have suitably qualified and experienced trainers as required	7	20	5	14.2	2	5.7	11	31.4	10	28.5	32	92.1	20	59.1	16	47.1	10	29.4	3	8.8

3	The trainers have the required subject matter knowledge, practical skills and required pedagogical knowledge and skill to teach and trained their courses	6	17.1	5	14.2	3	8.5	11	31.4	10	28.5	22	13.8	35	22	18	11.3	61	38.3	23	14.4
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NB SA=strongly agree A= agree UD = undecided DA= disagree SD= strongly disagree

The five scales of measurement have been condensed into two for more clarity and easy analysis and interpretation. Strongly agree and agree are condensed into agree and strongly disagree and disagree are condensed into disagree.

Item 1 in table 7 is related to education and training Process related issues. The results in table 4b indicate that all selected respondents responded differently about education and training Trainers used different training methodologies to develop trainee’s skill, attitude and knowledge. 21 (60%) of trainers, and 108 (67.9%) of trainees disagree; they respond that their institute Trainers did not used different training methodologies to develop trainees skill, attitude and knowledge. Item 2 in table 7 is related to education and training Process. The results in table 7 indicate that all selected respondents responded differently about the institute have suitably qualified and experienced trainers as required 12 (34.2%) of trainers agree, and 21(60%) of trainers disagree; whereas 48 (30.2%) of trainees agree and 108 (68%) of trainees disagree on this. therefore the institute had not suitably qualified and experienced trainers as required. Item 3 in table 4b is related to the trainer’s subject matter knowledge, practical skills and required pedagogical knowledge and skill to teach and trained their courses. The results in table 7 indicate that respondents responded differently about The institute trainers have the required subject matter knowledge, practical skills and required pedagogical knowledge and skill to teach and trained their courses; 11(31.4%) of trainers agree and 21(60%) of trainers disagree. Similarly, 57(35.8%) of trainees agree and, 84 (52.8%) of trainees disagree. these responses shown that their institute trainers had not the required subject matter knowledge, practical skills and required pedagogical knowledge and skill to teach and trained their courses.

Generally Shortage of skilled, experienced and competent trainers to use different methods as rated in table 7 item 3. This fact reveals that problems related to teachers/trainers' skill and competencies are the problem which is affecting the quality of education and training. The concern for method is based on the philosophy that trainee centered/ self-initiated/ methods enhance individual participation and subsequently different potentialities are developed.

#### 4.4. Education and Training output Issues

**Table 8:** Teachers/trainers and trainees' responses on output related issues

No.	Indicators(items)	Teachers/Trainers Responses										Trainees Responses									
		SA		A		UD		DA		SDA		SA		A		UD		DA		SD	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1	I can confidently say that trainees got the required subject matter knowledge to teach/train after graduation	1	2.8	3	8.5	5	14.2	18	51.4	8	22.8	18	11.3	32	20.1	15	9.4	80	50.3	14	8.8
2	Trainees performance is high	4	11.4	5	14.2	2	5.7	14	40	10	28.5	21	13.2	32	20.1	13	1.8	8	45.2	31	19.4
3	The grade trainees scored is high	2	5.7	12	34.2	8	23	3	8.5	17	48.5	1	2.8	22	13.8	31	19.4	3	1.8	8	20.1

NB SA=strong agree A= agree UD=undecided DA=disagree SD=strongly disagree

Based on table 8, the five scales of measurement have been condensed into two for more clarity and easy analysis and interpretation. Strongly agree and agree are condensed into agree and strongly disagree and disagree are condensed into disagree.

Item 1 in table 8 is related to education and training output related issues. The results in table 8 indicate that all selected respondents responded differently about trainees got the required subject matter knowledge to teach/train after graduation 26 (60%) of trainers, and 94 (67.9%) of trainees disagree; they respond that their institute trainees did not get the required subject matter knowledge to teach/train after graduation. Item 2 in table 8 is related to education and training output. The results in table 8 indicate that all selected respondents responded differently about Trainees performance is high; 9 (25.7%) of trainers agree, and 24(68.5%) of trainers disagree; whereas 53(33.3%) of trainees agree and 103 (64.7%) of trainees disagree on this. Therefore, the trainee's performance is low.

Item 3 in table 8 is related to the grade trainees scored. The results in table 8 indicate that respondents responded differently about the grade trainees scored is high; 14(31.4%) of trainers agree and 18(60%) of trainers disagree. Similarly, 53(33.3%) of trainees agree and, 103 (64.77%) of trainees disagree. these responses shown that their institute trainees had not scored high grade. in other words the institute trainees had scored low grades. this data

indicates that the quality of education and training in federal technical and educational education and training institute is under question.

**Table 9:** Teachers/trainers and trainees’ level of agreement on the strategies for improving quality education and training in the institute

No	strategies for improving quality education and training	Teachers/trainers responses										Trainees Responses									
		SA		A		UD		DA		SD		SA		A		UD		DA		SD	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1	Improve Trainers Subject Matter Competency and Pedagogical Skills	6	17	17	48.5	2	5.7	4	11.4	6	17.1	58	36.4	62	38.9	5	3	20	12.5	14	8.8
2	Fulfill Training resources	8	22.8	14	40	3	8.5	6	17	4	11.4	72	45.2	68	42.7	2	1.25	9	5.6	8	5
3	Improve Trainers Language skills	7	4.4	15	42.8	2	5.7	8	22.8	3	8.5	56	35.2	64	40.25	4	2.5	20	12.5	15	9.4
4	Improve Management Competency	8	22.8	14	40	3	8.5	4	11.4	6	17	71	44.6	69	43.3	3	1.8	9	5.6	7	4.4

NB SA=strong agree A= agree UD = undecided DA= disagree SD= strongly disagree

Based on table 9, the five scales of measurement have been condensed into two for more clarity and easy analysis and interpretation. Strongly agree and agree are condensed into agree and strongly disagree and disagree are condensed into disagree.

Item 1 in table 9 is related to strategies for improving quality education and training in the institute. The results in table 9 indicate that all selected respondents responded Improve Trainers Subject Matter Competency and Pedagogical Skills, 23 (65.7%) of trainers, and 120 (75.4%) of trainees agree; and 10 (28.5%) of trainers, and 34 (21.3%) of trainees disagree. They respond that their institute should Improve Trainers Subject Matter Competency and Pedagogical Skills.

Item 2 in table 9 is related to strategies for improving quality education and training in the institute. The results in table 9 indicate that all selected respondents responded about Fulfill Training resources. 22 (62.8%) of trainers agree, and 10(28.5%) of trainers disagree; whereas 140(88%) of trainees agree and 13(64.7%) of trainees disagree on this. Therefore, the institute should Fulfill Training resources. Item 3 in table 9 is related to strategies. The results in table 9 indicate that respondents responded about strategies Improve Trainers Language skills; 22(62.8%) of trainers agree and 11(31.4%) of trainers disagree. Similarly, 120(75.4%) of trainees agree and, 35 (22%) of trainees disagree. these responses shown that their institute should Improve Trainers Language skills. Item 4 in table 9 is related to strategies. The results in table 9 indicate that respondents responded about strategies Improve Management Competency 20 (57.1%) of trainers agree and 10(28.5%) of trainers disagree. Similarly, 140(88%) of trainees agree and, 16(10%) of trainees disagree. These responses shown that their institute should Improve Management Competency

#### **4.5. Analysis of Major Significant Factors Affecting Quality of Education and training**

In this section, shortage of qualified and competent man power, lack of adequate education facilities and the quality of trainees joining to the institute were analyzed to predict the major significant factors that affect the quality of training as shown from the findings

which are emanate from responses of questionnaires.

As data collected from the responses of interview questions on items observed among the respondents it is possible to conclude that shortage of qualified and experienced trainers are affecting the quality of the education and training. Beside to those factors, the majority responses in open ended question "list some of the major quality problems faced in which you observe" condensed that it is lack of adequate educational facilities, lack of supportive management, lack of competent and experienced trainers and lack of training methodologies are the major significant factors affecting quality of education

To sum up, the study had identified the major challenges in the realization of quality are lack of education and training facility, lack of experienced and skilled trainers, lack of training methodologies and lack of competent management are the major significant factors affecting quality of education.

- one can deduce that in federal technical and vocational education and training institute, lack of input (relevant and adequate education and training facilities) adversely affect the quality of education
- There is also serious problem in education and training process. Education and training Process related issues such as :-50% theory and 50%practice training method of is not implement properly, The Cooperative Training is not employed as required and students/trainees are not hardworking and enthusiastic (self-initiated)
- The analysis indicated that the institute management did not evaluates the students' performance and management rules and procedures are not supportive to the teaching & training process this is due to lack of competent leadership.
- Shortage of skilled, experienced and competent trainers to use different methods are problems related to teachers/trainers' skill and competencies the problem which is affecting the quality of education and training.

# Chapter Five

## 5. Summary, Conclusion and Recommendation

This chapter consists of three sub sections. The first sub section deals with the general summary. The next parts presents conclusion drawn from the findings and the last one presents alternatives solutions recommended to as to case the problems encountered the corner of quality education and training.

### 5.1. Summary

The objective of this study was to assess the quality education and training in federal technical and vocational education and training institute. In order to attain these objectives, the following basic questions were raised and answered in the course of the study

1. To what extent do the input factors influence the quality?
2. How much the practical and theoretical method of teaching and training integrated with cooperative training?
3. To what extent does the competency of managers of the institute influence the quality of education and training?
4. To what extent do the academic qualifications of instructors influence the quality?

Questionnaire and interview were used to collect data from federal technical and vocational education and training institute of trainers, trainees, directors and division heads. The collected data were analyzed through percentages and frequencies.

#### 5.1.1 Characteristics of respondents

Data was collected from the institute administration, teacher/trainers and trainees based on their qualification experience and educational qualification. Of the total sample respondents, 6(2.9%) are directors, 35(17%) are teachers/trainers, 5(2.4%) are division heads and 159

(77.5%) are trainees. The number of trainees' is made bigger than the other groups because their target population are bigger compared to those of the other groups. Furthermore, the idea was necessary for consistency checking since trainees are not used to interviews.

### **5.1.2 Major findings**

#### **5.1.2.1 Input factors**

The data collected by questionnaires, open-ended questionnaires and interviews gave accompaniment evidence to this argument. The response of respondents enumerated a number of problems such as trainees' deficiency of instructional language knowledge, inappropriate use of time in both trainees and trainers large class size, very limited laboratory facilities, lack of latest books and project facilities. These are the major chronic problems of education and training quality in their institute. From the responses of all groups of respondents one can say that shortage of appropriate educational facility is affecting the quality of education and training offered in federal technical and vocational education and training institute. This is because lack of the availability of relevant facilities are limited the effectiveness of the trainers and trainees.

In support of this my observation of documents, all directors and division heads responses during the interview for question "to what extent the necessary educations facilities present in the institute?" indicated that the necessary education and training facilities highly insufficient.

Therefore, one can deduce that in federal technical and vocational education and training institute, lack of input (relevant and adequate education and training facilities) adversely affect the quality of education.

#### **5.1.2.2 The teaching and training method or process**

According to the data collected from the respondents with questionnaires, the institute 2009 E.C supervision report and from interview of directors and division heads, with question "What are the barriers to the quality of education and training in the institute". It is possible to infer that there is serious problem in education and training process. Education and training Process related issues such as :-50% theory and 50%practice training method is not

implement properly, The Cooperative Training is not implied as required and students/trainees are not hardworking and enthusiastic (self-initiated).

### **5.1.2.3 The management competency**

It is possible to infer that there are problems in concerning to managements competency such as participate trainers and trainees in the academic decision to solve problems of education and training process. The institute management did not evaluates the students' performance and management rules and procedures are not supportive to the teaching & training process

### **5.1.2.4 Academic qualification of trainers**

Shortage of skilled, experienced and competent trainers to use different methods reveals that problems related to teachers/trainers' skill and competencies are the problem which is affecting the quality of education and training.

Generally the findings obtained from the analyzed data shown the following

- Concerning the availability and relevancy of educational facilities, there are no adequate and relevant teaching- learning facilities. This problem forced the institute to depend on theoretical teaching process than practical work.
- Regarding instructional facilities majority of teachers and students indicated that there is a poor supply of instructional materials
- Regarding competency of management the majority of the responds that the competency and qualification of the management is not acknowledged to ensure the clear management structure and provide conducive teaching environment.
- Regarding to teaching experience and competences most of the teachers most of the trainers have an experiences of below 10 years in areas of teaching. Thus, sometime they are not capable enough to manage their class.
- The implication in that even through the nature of teaching needs industry based experience.

## **5.2. Conclusion**

Based on the analysis made in the preceding section of the findings of the study the following conclusions have been deduced

- ✓ The teaching facility gap concerning the nature of education and the poor quality of training and learning process
- ✓ The findings of the study indicated that the education and training is not meeting its target as the institute is suffering from lack of quality of inputs and process as a significant factor to promote quality of the education and training.
- ✓ Shortage of resources and budget and lack of incentives have limited the effort of trainers and this in turn limits the changes sought at institute level.
- ✓ The problems of institute management like lack of competency to provide adequate education and training resources; higher well qualified, experienced and skilled trainers; to providing conducive environment; to participate trainers and trainees for solving education and training problems.
- ✓ The result of trainees low; trainees complaining highly that they did not have knowledge to their future works.

### **5.3. Recommendations**

From the findings of the study, it has been assessed that there is a need to recommend a remedial needs to mitigate the significant factors affecting the quality of education and training.

The recommendations forwarded in this particular study are include:-

1. From the findings of the study shortage of appropriate education and training facility is affecting the quality of education and training offered in federal technical and vocational education and training institute. This is because lack of the availability of relevant facilities are limited the effectiveness of the trainers and trainees. Therefore, one can deduce that in federal technical and vocational education and training institute, lack of input (relevant and adequate education and training facilities) adversely affect the quality of education. To minimize shortage of resources in the institute the leader and concerned body must be properly assessed and utilize materials equipment plan and economic order quantity which could facilitate the ordering point and time. Institute should look for the

quality and relevant of teaching material in accordance with the curriculum designed for each subjects

2. Education and training Process related issues such as :-50% theory and 50%practice training method is not implement properly, The Cooperative Training is not implied as required and students/trainees are not hardworking and enthusiastic. The work of quality is best achieved when it is practiced collaboratively. Thus, all stakeholders have to share what they have learn one from the other, and work hand in hand to achieve better in the future than in the present
3. It is possible to infer that there are problems in concerning to managements competency such as participate trainers and trainees in the academic decision to solve problems of education and training; The institute management did not evaluates the students' performance and management rules and procedures are not supportive to the teaching & training process. to solve this:- The institute management should be participatory and should be equipped with knowledge; The institute leaders and management should also give strong support to the trainers and the trainees to solve training problems.
4. Shortage of skilled, experienced and competent trainers to use different methods reveals that problems which is affecting the quality of education and training. so Continuous trainings and workshops should be prepared by the right persons, who are well skill, have knowledge better than others; the institute leaders should higher well experienced, imitative, skilled and qualified trainers.
5. I highly recommends the institute develops commitment and awareness to quality education
6. Finally, I would like to recommend further studies with a wide scope at regional and national level in order to gain in depth understanding of the major factors affecting the quality of education at input and process level which are the basic area to determine the quality of output

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## **APPENDICES**

### **Appendix a: Questionnaire to be filled by Teachers/trainers**

Addis Ababa University

College of education and behavioral studies

Department educational planning and management

Program Educational leadership and Management

Dear respondent

This questionnaire is designed to collect information on research entitled an assessment of quality of education and training in federal technical and vocational education and training institute. Your genuine response is very crucial for the successful completion of this research. The data collected will be used only for academic purpose and be kept confidential.

Thank you in advance for your cooperation

**General Instruction**

Please respond to the item in the questionnaire by putting a tick mark (√) inside the box.

**Part one: demographic variable**

1).Gender:

Male  Female

2).Age:

20 - 25  31-35   
26 -30  36-40   
40-45  above 45

3). Level of Education

Diploma & below Diploma  Bachelor Degree  Masters  PhD

4). your department\_\_\_\_\_

5). Years of experience in teaching in higher education\_\_\_\_\_

6). any additional responsibility/position you are given\_\_\_\_\_

**Part II:-** Read the following indicators of quality in education and training in federal technical and vocational education and training institute and rate your level of agreement by putting a (X) mark against the statements.

(SA=Strongly Agree, A, Agree, UD=Undecided, DA=Disagree and SD=Strongly Disagree)

No	Items	Sa	A	UD	DA	SD
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I	Input related					
1	The institute has A safe, well-maintained learning environment					
2	The institute has Appropriate training resources					
3	The institute has Appropriate, well-designed curriculum and strategies					
4	The trainees have required instructional language knowledge					
5	The institute has developed quality assurance policies					
II	Process related					
6	Trainers used different training methodologies to develop trainees skill, attitude and knowledge					
7	The institute has suitably qualified and experienced trainers as required					
8	The trainers have the required subject matter knowledge, practical skills and required pedagogical knowledge and skill to teach and trained their courses					
9	50% theory and 50%practice training method properly employed					
10	The Cooperative Training is employed as required					
11	students/trainees are hardworking and enthusiastic (self-initiated)					
12	There is a good communication among teachers and the department head/coordinator in sharing and solving students/trainees problems.					
13	The leadership show high commitment for education Excellence					
14	The management of the institute evaluates the students' performance					
15	The management rules and procedures are supportive to the teaching& training process					
III	Output related					
16	I can confidently say that trainees got the required subject matter knowledge to teach/train after graduation					
17	Trainees performance is high					
18	The trainees scored high grade					

**Part III. Rate your level of agreement by putting a (X) mark to the following**

strategies for improving quality education and training in the institute.  
 (SA=Strongly Agree, A, Agree, UD=Undecided, DA=Disagree and SDA=Strongly Disagree)

ተ.ቁ	strategies for improving quality education and training	SA	A	UD	DA	SD
1	Improve Trainers Subject Matter Competency and Pedagogical Skills					
2	Fulfill Training resources					
3	Improve Trainers Language skills					
4	Improve Management Competency					

Appendix B Questionnaire to be filled by Trainees

Addis Ababa University  
College of education and behavioral studies  
Department educational planning and management  
Program Educational leadership and Management

Dear respondent

This questionnaire is designed to collect information on research entitled an assessment of quality of education and training in federal technical and vocational education and training institute. Your genuine response is very crucial for the successful completion of this research. The data collected will be used only for academic purpose and be kept confidential.

Thank you in advance for your cooperation

**Part I Demographic Variables**

1. Sex: A. Male B, Female

2. Write Department Indicate yours by putting (x) mark against it.

Department of	X
1. Building Construction Technology	
2. Surveying Technology	
3. Automotive Technology	
4. Garment Technology	
5. Electronics and Communication Technology	

### 3. BATCH

A/ 2008 E.C.  2009 E.C

**Part II Read the following indicators of quality in education and training in federal technical and vocational education and training institute and rate your level of agreement by putting a (X) mark against the statements. (SA=Strongly Agree, A, Agree, UD=Undecided, DA=Disagree and SDA=Strongly Disagree)**

No	Items	Sa	A	UD	DA	SD
I	Input related					
1	The institute has A safe, well-maintained learning environment					
2	The institute has Appropriate training resources					
3	The institute has Appropriate, well-designed curriculum and strategies					
4	The trainees have required instructional language knowledge					
5	The institute has developed quality assurance policies					
II	Process related					
6	Trainers used different training methodologies to develop trainees skill, attitude and knowledge					
7	The institute has suitably qualified and experienced trainers as required					
8	The trainers have the required subject matter knowledge, practical skills and required pedagogical knowledge and skill to teach and trained their courses					
9	50% theory and 50%practice training method properly implied					
10	The Cooperative Training is employed as required					
11	students/trainees are hardworking and enthusiastic (self-initiated)					
12	There is a good communication among teachers and the department head/coordinator in sharing and solving students/trainees problems.					
13	The leadership show high commitment for education Excellence					
14	The management of the institute evaluates the students' performance					
15	The management rules and procedures are supportive to the teaching& training process					
III	Output related					
16	I can confidently say that trainees got the required subject matter knowledge to teach/train after graduation					
17	Trainees performance is high					
18	The trainees scored high grade					

Part III. Rate your level of agreement by putting a (X) mark to the following strategies for improving quality education and training in the institute.(SA=Strongly Agree, A, Agree, UD=Undecided, DA=Disagree and SD=Strongly Disagree)

ተ.ቁ	strategies for improving quality education and training	SA	A	UD	DA	SD
1	Improve Trainers Subject Matter Competency and Pedagogical Skills					
2	Fulfill Training resources					
3	Improve Trainers Language skills					
4	Improve Management Competency					

Thank you for devoting your precious time!

**Appendix C** Questionnaire to be filled by directorates and division heads  
Addis Ababa University  
College of education and behavioral studies  
Department educational planning and management  
Program Educational leadership and Management

Dear respondent

This questionnaire is designed to collect information on research entitled an assessment of quality of education and training in federal technical and vocational education and training institute. Your genuine response is very crucial for the successful completion of this research. The data collected will be used only for academic purpose and be kept confidential.

Thank you in advance for your cooperation

**Part one: demographic variable**

**1).Gender:**

Male  Female

**2).Age:**

20 - 25  31-35   
26 -30  36-40   
41-45  above 45

**3). Level of Education**

Diploma & below Diploma  Bachelor Degree  Masters  D

4).Field of specialization\_\_\_\_\_

5).Work experience -----

6).position\_\_\_\_\_

**Part two**

**Please rate your level of agreement by putting a (X) mark appropriately based on the following information:**

**Strongly agree=SA agree=A undecided=U D disagree=DA strongly disagree=SD**

No	Items	SA	A	UD	DA	SD
1	The training materials available enough					
2	The institute have quality trainers/ teachers					
3	The institute establish safe and supportive quality learning environments					
4	The leadership show high commitment for education Excellence					
5	The management of the institute evaluates the students' performance					
6	The management rules and procedures are supportive to the teaching& training process					
7	The institute Supervision is periodically done					
8	The institute has developed quality assurance policies					
9	The management allow teacher/ trainers to participate in the academic decision					

**Part three : Open ended questions**

1. Does the institute organized short term training for its staff? \_\_\_\_\_

If yes how often and in what topic?

\_\_\_\_\_

If not why? \_\_\_\_\_

\_\_\_\_\_

2. Please list some of the major quality problems faced in which you observe

\_\_\_\_\_  
\_\_\_\_\_

3. Please give suggestion for improvement of the quality of education and training \_\_\_\_\_

\_\_\_\_\_

Thank You So much for Your Cooperation

**Appendix D. Structured interview questions for leaders**

Dear interviewee

- First of all my sincere gratitude goes to you. I am working on my thesis for Masters of Leadership and Management
- The purpose of this interview is to collect basic data on the quality of education and training in TVETI

**Interview Guide**

1. What does it mean by the term quality of education and training?
2. What are elements that can be used to describe quality of education?
3. Can you explain how quality can be improved in education?
4. What is your role in improving quality?
5. What are the barriers to the quality of education and training in the institute?
6. .In your opinion to what extent the necessary educations facilities present in the institute?
7. Please give suggestion for improvement of the quality of education and training in the institute\_\_\_\_\_

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THANK YOU SOMUCH FOR YOUR COOPERATION

**Appendix E Supervision report of federal technical and vocational education and training institute is attached here**



*የፌዴራል ቴክኒካልና ምህንጃቅና ስልጠና እስተፋት ተምህርት ቤቅ 2009 ዓ.ም*

*የሰሰተኛው ፍብአመት የሱፐርቪዥን ግምገማሪ ፖርት*

*የሱፐርቪዥን ግምገማሪ ፖርት*

1. ዶ/ር በክረጽዮን ሀይለስላሴ
2. ዶ/ር ቢያድግልኝ አደመ
3. አቶ ሲሳይ ክፍሌ
4. አቶ ተመስገን ታደሰ
5. አቶ ወሎ ሀገሥት
6. አቶ ጌታቸው ቶግ

**FEDERAL TECHNICAL AND VOCATIONAL TRAINING INSTITUTE**

**Division Heads' Supervision Checklist (To be filled by Supervision Team Members)**

**Division \_\_\_ pedagogy\_**

**Directions**

The following list of statements help to look at the effectiveness of the division named above. The purpose of the evaluation is to identify strengths and weaknesses and further improve the efficiency of the division. Indicate your assessment of the division for the following assessment criteria items by marking an 'X' on any one of the given options (1, 2, 3, 4) where 1 = Very Poor; 2 = Poor; 3 = Good; 4 = Very Good; and NA=Not Applicable

Criteria		Rating Scale				
		4	3	2	1	NA
1	Prepares and revises the annual plan of the division	X				
2	Forward the division plan to the departments and give orientation	X				
3	Coordinates the implementation of the division's activities	X				
4	Monitors and evaluates department performances using clear evaluation checklists	X				
5	Leads the processes of staff recruitment and selection	X				
6	Coordinates staff development activities	X				
7	Ensures the implementation of all policies of the institute	X				
8	Recommends the appointment and/or promotion of staff based on the legislation of the Institute	X				
9	Evaluates overall division's efficiency in instruction, research, and community service responsibilities	X				
10	Provides recommendations on policies and procedures, especially in the academic area	X				
11	Develops, leads, and encourages fundraising in support of the division's objectives and outreach the public service efforts		X			
12	Controls and follow ups the implementation of cooperative training					X
13	Follow ups the practices of Technology Army and ranking		X			
14	Supervises the implementation of 1 to 5 team for students					X
15	Supervises the implementation of 1 to 5 staff team	X				
16	Provides feedback for further improvement of Technology Army		X			
17	Follow-up the practice of the training 50% theory and 50% practice while teaching-learning process	X				
18	Facilitates in Technology Transfer					X
19	Follow up the implementation of Industry linkage					X
20	Organizes AC meeting for decision making supported by minute	X				
21	Identify and solve good governance problems	X				
22	Evaluate the efficiency of department heads based on the evaluation criteria		X			
23	Accomplishes tasks given on time			X		
24	Reports quarterly and/or as required	X				
	<b>Total</b>	<b>92.5%</b>				

**Federal Technical And Vocational Training Institute**

**Division Heads' Supervision Checklist (To be filled by Supervision Team Members)**

**Division civiltech\_\_\_\_**

**Directions**

The following list of statements help to look at the effectiveness of the division named above. The purpose of the evaluation is to identify strengths and weaknesses and further improve the efficiency of the division. Indicate your assessment of the division for the following assessment criteria items by marking an 'X' on any one of the given options (1, 2, 3, 4) where 1 = Very Poor; 2 = Poor; 3 = Good; 4 = Very Good; and NA=Not Applicable

Criteria		Rating Scale				
		4	3	2	1	NA
1	Prepares and revises the annual plan of the division	X				
2	Forward the division plan to the departments and give orientation	X				
3	Coordinates the implementation of the division's activities	X				
4	Monitors and evaluates department performances using clear evaluation checklists			X		
5	Leads the processes of staff recruitment and selection	X				
6	Coordinates staff development activities	X				
7	Ensures the implementation of all policies of the institute	X				
8	Recommends the appointment and/or promotion of staff based on the legislation of the Institute	X				
9	Evaluates overall division's efficiency in instruction, research, and community service responsibilities		X			
10	Provides recommendations on policies and procedures, especially in the academic area	X				
11	Develops, leads, and encourages fundraising in support of the division's objectives and outreach the public service efforts		X			
12	Controls and follow ups the implementation of cooperative training		X			
13	Follow ups the practices of Technology Army and ranking		X			
14	Supervises the implementation of 1 to 5 team for students		X			
15	Supervises the implementation of 1 to 5 staff team	X				
16	Provides feedback for further improvement of Technology Army		X			
17	Follow-up the practice of the training 50% theory and 50% practice while teaching-learning process		X			
18	Facilitates in Technology Transfer			X		
19	Follow up the implementation of Industry linkage		X			
20	Organizes AC meeting for decision making supported by minute	X				
21	Identify and solve good governance problems		X			
22	Evaluate the efficiency of department heads based on the evaluation criteria		X			
23	Accomplishes tasks given on time			X		
<b>Total</b>		<b>83.33%</b>				

**Division Heads' Supervision Checklist (To be filled by Supervision Team Members) Division textile and apparel fashion technology Quarter: 3 A/Y 2009E.C**

**Directions**

The following list of statements help to look at the effectiveness of the division named above. The purpose of the evaluation is to identify strengths and weaknesses and further improve the efficiency of the division. Indicate your assessment of the division for the following assessment criteria items by marking an ‘X’ on any one of the given options (1, 2, 3, 4) where 1 = Very Poor; 2 = Poor; 3 = Good; 4 = Very Good; and NA=Not Applicable

Criteria		Rating Scale				
		4	3	2	1	NA
1	Prepares and revises the annual plan of the division	X				
2	Forward the division plan to the departments and give orientation	X				
3	Coordinates the implementation of the division’s activities	X				
4	Monitors and evaluates department performances using clear evaluation checklists		X			
5	Leads the processes of staff recruitment and selection		X			
6	Coordinates staff development activities	X				
7	Ensures the implementation of all policies of the institute	X				
8	Recommends the appointment and/or promotion of staff based on the legislation of the Institute	X				
9	Evaluates overall division’s efficiency in instruction, research, and community service responsibilities		X			
10	Provides recommendations on policies and procedures, especially in the academic area	X				
11	Develops, leads, and encourages fundraising in support of the division's objectives and outreach the public service efforts		X			
12	Controls and follow ups the implementation of cooperative training	X				
13	Follow ups the practices of Technology Army and ranking	X				
14	Supervises the implementation of 1 to 5 team for students	X				
15	Provides feedback for further improvement of Technology Army		X			
16	Follow-up the practice of the training 50% theory and 50% practice while teaching-learning process	X				
17	Facilitates in Technology Transfer	X				
18	Follow up the implementation of Industry linkage		X			
19	Organizes AC meeting for decision making supported by minute	X				
<b>Total</b>		<b>91.67%</b>				

**Department Heads’ Supervision Checklist (To be filled by Supervision Team Members)**

**Department surveying technology Division civil Quarter\_3rd\_\_A/Y\_2009 E.C**

**Directions**

The following list of statements help to look at the effectiveness of the department named above. The purpose of the evaluation is to identify strengths and weaknesses and further improve the efficiency of the department. Indicate your assessment of the department for the following assessment criteria items by marking an 'X' on any one of the given options (1, 2, 3, 4) where 1 = Very Poor; 2 = Poor; 3 = Good; 4 = Very Good; and NA=Not Applicable

Criteria		Rating Scale				
		4	3	2	1	NA
1	Prepares plans of the department	X				
2	Presents the plan to the staff for discussion and improvement			X		
3	Follows up the practice of Technology Army and provides feedback for further improvement	X				
4	Supervises the implementation of 1 to 5 students team and assign mentors	X				
5	Supervises the implementation of 1 to 5 staff team and ranking		X			
6	Coordinates staff members to carryout project works, researches, and community services		X			
7	Support teachers and checks the practice of cooperative training	X				
8	Coordinates the assessment practice of teaching learning process		X			
9	Promotes and serves as a role model to the department	X				
10	Oversees all personnel matters involving academic and non-academic employees of the department and solve the problems	X				
11	Maintains good working relationships with departments and administrative staff	X				
12	Maintains effective communication between students, within the department/division and with other academic units		X			
13	Articulates Institute policy and procedures to members of the department	X				
14	Articulates the budgetary needs of the department and oversees the allocation and expenditure of resources		X			
15	Efficiently utilizes resources (tools, machineries, equipment or consumables materials)	X				
16	Handles student and staff complaints properly		X			
17	Facilitate the Implementation of Technology Transfer			X		
18	Reports quarterly and as required		X			
	Total	88.54%				

**Department Heads' Supervision Checklist (To be filled by Supervision Team Members)**

**Department garment technology Division textile apparel Quarter\_3rd\_\_A/Y\_2009 E.C**

**Directions**

The following list of statements help to look at the effectiveness of the department named above. The purpose of the evaluation is to identify strengths and weaknesses and further improve the efficiency of the department. Indicate your assessment of the department for the following assessment criteria items by marking an 'X' on any one of the given options (1, 2, 3, 4) where 1 = Very Poor; 2 = Poor; 3 = Good; 4 = Very Good; and NA=Not Applicable

Criteria		Rating Scale				
		4	3	2	1	NA
1	Follows up the practice of Technology Army and provides feedback for further improvement	X				
2	Supervises the implementation of 1 to 5 students team and assign mentors	X				
3	Supervises the implementation of 1 to 5 staff team and ranking		X			
4	Coordinates staff members to carryout project works, researches, and community services	X				
5	Support teachers and checks the practice of cooperative training	X				
6	Coordinates the assessment practice of teaching learning process	X				
7	Oversees all personnel matters involving academic and non-academic employees of the department and solve the problems	X				
8	Maintains good working relationships with departments and administrative staff		X			
9	Maintains effective communication between students, within the department/division and with other academic units			X		
10	Articulates Institute policy and procedures to members of the department	X				
11	Articulates the budgetary needs of the department and oversees the allocation and expenditure of resources		X			
12	Efficiently utilizes resources (tools, machineries, equipment or consumables materials)	X				
13	Handles student and staff complaints properly		X			
14	Prepares class schedules	X				
15	Assigns and follows up teachers as academic advisors and Technology Army leaders	X				
16	Follow-up on the practice of the training 50% theory and 50% practice while teaching-learning	X				
17	Facilitate the Implementation of Technology Transfer		X			
Total		93.75%				

**Department Heads' Supervision Checklist (To be filled by Supervision Team Members)**

**Department Electrical Electronics Division ICT & Electrical Quarter 3rd A/Y 2009 E.C**

**Directions**

The following list of statements help to look at the effectiveness of the department named above. The purpose of the evaluation is to identify strengths and weaknesses and further improve the efficiency of the department. Indicate your assessment of the department for the following assessment criteria items by marking an 'X' on any one of the given options (1, 2, 3, 4) where 1 = Very Poor; 2 = Poor; 3 = Good; 4 = Very Good; and NA=Not Applicable

Criteria		Rating Scale				
		4	3	2	1	NA
1	Follows up the practice of Technology Army and provides feedback for further improvement					
2	Supervises the implementation of 1 to 5 students team and assign mentors					
3	Supervises the implementation of 1 to 5 staff team and ranking	X				
4	Coordinates staff members to carryout project works, researches, and community services			X		
5	Support teachers and checks the practice of cooperative training		X			
6	Coordinates the assessment practice of teaching learning process	X				
7	Oversees all personnel matters involving academic and non-academic employees of the department and solve the problems					
8	Maintains good working relationships with departments and administrative staff			X		
9	Maintains effective communication between students, within the department/division and with other academic units			X		
10	Articulates Institute policy and procedures to members of the department				X	
11	Articulates the budgetary needs of the department and oversees the allocation and expenditure of resources			X		
12	Efficiently utilizes resources (tools, machineries, equipment or consumables materials)			X		
13	Handles student and staff complaints properly			X		
14	Prepares class schedules		X			
15	Assigns and follows up teachers as academic advisors and Technology Army leaders			X		
16	Follow-up on the practice of the training 50% theory and 50% practice while teaching-learning			X		
17	Facilitate the Implementation of Technology Transfer	X				
Total		59.38%				

**Department Heads' Supervision Checklist (To be filled by Supervision Team Members)**

**Department Automotive Technology \_ Division mechanicalQuarter\_3rd A/Y\_2009 E.C**

**Directions**

The following list of statements help to look at the effectiveness of the department named above. The purpose of the evaluation is to identify strengths and weaknesses and further improve the efficiency of the department. Indicate your assessment of the department for the following assessment criteria items by marking an 'X' on any one of the given options (1, 2, 3, 4) where 1 = Very Poor; 2 = Poor; 3 = Good; 4 = Very Good; and NA=Not Applicable

Criteria		Rating Scale				
		4	3	2	1	NA
1	Follows up the practice of Technology Army and provides feedback for further improvement	X				
2	Supervises the implementation of 1 to 5 students team and assign mentors		X			
3	Supervises the implementation of 1 to 5 staff team and ranking			X		
4	Coordinates staff members to carryout project works, researches, and community services	X				
5	Support teachers and checks the practice of cooperative training		X			
6	Coordinates the assessment practice of teaching learning process	X				
7	Oversees all personnel matters involving academic and non-academic employees of the department and solve the problems					
8	Maintains good working relationships with departments and administrative staff	X				
9	Maintains effective communication between students, within the department/division and with other academic units	X				
10	Articulates Institute policy and procedures to members of the department	X				
11	Articulates the budgetary needs of the department and oversees the allocation and expenditure of resources	X				
12	Efficiently utilizes resources (tools, machineries, equipment or consumables materials)		X			
13	Handles student and staff complaints properly	X				
14	Assigns and follows up teachers as academic advisors and Technology Army leaders	X				
15	Follow-up on the practice of the training 50% theory and 50% practice while teaching-learning	X				
16	Facilitate the Implementation of Technology Transfer	X				
	Total	93.75%				

**Department Heads' Supervision Checklist (To be filled by Supervision Team Members)**

**Department manufacturing Technology Division mechanicalQuarter\_3<sup>rd</sup>A/Y\_2009 E.C**

**Directions**

The following list of statements help to look at the effectiveness of the department named above. The purpose of the evaluation is to identify strengths and weaknesses and further improve the efficiency of the department. Indicate your assessment of the department for the following assessment criteria items by marking an 'X' on any one of the given options (1, 2, 3, 4) where 1 = Very Poor; 2 = Poor; 3 = Good; 4 = Very Good; and NA=Not Applicable

Criteria		Rating Scale				
		4	3	2	1	NA
1	Follows up the practice of Technology Army and provides feedback for further improvement	X				
2	Supervises the implementation of 1 to 5 students team and assign mentors	X				
3	Supervises the implementation of 1 to 5 staff team and ranking				X	
4	Coordinates staff members to carryout project works, researches, and community services	X				
5	Support teachers and checks the practice of cooperative training	X				
6	Coordinates the assessment practice of teaching learning process			X		
7	Oversees all personnel matters involving academic and non-academic employees of the department and solve the problems		X			
8	Maintains good working relationships with departments and administrative staff	X				
9	Maintains effective communication between students, within the department/division and with other academic units		X			
10	Articulates Institute policy and procedures to members of the department	X				
11	Articulates the budgetary needs of the department and oversees the allocation and expenditure of resources		X			
12	Efficiently utilizes resources (tools, machineries, equipment or consumables materials)	X				
13	Handles student and staff complaints properly		X			
14	Prepares class schedules	X				
15	Assigns and follows up teachers as academic advisors and Technology Army leaders	X				
16	Follow-up on the practice of the training 50% theory and 50% practice while teaching-learning	X				
17	Facilitate the Implementation of Technology Transfer		X			
	Total	81.25%				

## **DECLARATION**

I. The under signed, declare that this thesis is my original work and has never presented for a degree in any other university and that all sources of materials used for the thesis have duly acknowledged

Name \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

