Factors Influencing the Quality of Training: Technical and Vocational Education in Addis Ababa

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Abstract

The purpose of this study was to examine the factors influencing the quality of training in government TVET colleges in Addis Ababa. Descriptive survey method was employed to conduct the research. The primary sources of data were 67 instructors, 162 level II, III and IV regular program trainees and three academic vice deans. Purposive sampling, simple random sampling and stratified random sampling techniques were employed to select academic vice deans, instructors and trainees respectively. Observation checklist and questionnaires were the main data gathering instruments while interview and document analysis were employed to enrich the data gathered through observation checklist and questionnaires. Data were analyzed quantitatively using descriptive statistics, and qualitatively using descriptive narration. The outcome of the study shows that the academic qualification level of instructors was below the required minimum standard. Educational facilities and infrastructures were not up-to-date. Moreover, the leaders and managers were not adept at creating a positive working environment. As a result, the current status of training quality in government TVET colleges in Addis Ababa was found to be not promising when evaluated from the standpoint of input, process indicators and benchmarks of quality of training. Finally, necessary recommendations have been given for improving the current status of training quality.

Keywords: TVET (Technical and Vocational Education Training), Addis Ababa, quality of training, instructors

I. Introduction

Education and training is one of the essential driving forces and a necessary condition 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 beings. Building on this, education is a tool for generating knowledge, raising living

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standards, and enriching, as well as transmitting, society’s culture to future generations. 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 technological changes.

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 are available. Unless inputs are adequate and proper, and the process is well organized and conducted, achieving training objectives and producing competent trainees may be a formidable task.

Amare and Temechegn (2002: 27) pointed out that the profile of graduates from different training programs had come under attack by employers and researchers. They added that graduates who may be taken as problem solving ones were rarely observed in the Ethiopian context. As a solution to this problem, Zenawi (2007: 54) suggested that higher education, including TVET institutions, in Ethiopia needs to have an acceptable quality assurance system to evaluate whether they are working towards achieving their main objectives of producing qualified professionals for the workplace. In addition, Ahmed (July, 2007: 83) indicated that a considerable number of graduates remained unemployed and were reluctant to see self-employment as an alternative. This is due to the competency that the trainees acquired during the training and the colleges produce trainees that could not satisfy the market demand.

To produce the manpower the country needs, the Ethiopian government established and organized a number of technical and vocational training institutions throughout the country (MOE, 2007: 11). In Addis Ababa alone, there are six TVET colleges run by the government (Entoto TVET, General Winget TVET, Tegbare Ed TVET, Misrak TVET and Nifasilk TVET, Ethio China Poly Technique College) and four by non-government organizations (SELAM TVET, SOS TVET, HOPE TVET and DOMBOSCO TVET).

Although the number of TVET graduates increases year by year, the quality of training being provided and the competency of graduates from the institutes have not met the expectations of employers or the general public. The institutes have not been able to satisfy the skilled manpower demands of the labor market since they began offering training in 2001/2002 in line with the 1994 Education and Training policy of Ethiopia. This mainly seems to have been a result of the quality and type of training offered and it is not unusual for graduates of these institutes to be roaming the streets of the capital out of work.

The fact that large numbers of young people are graduating from these institutions only to swell the ranks of the unemployed suggests there is a need to isolate the causes of these problems and seek solutions before they worsen and start challenging the very existence of the training institutions.

The question of quality has now become a burning issue in the Ethiopian technical and vocational training system. If training institutions cannot provide the quality training that produces competent young graduates, and if the training provided cannot equip trainees with marketable skills, then TVET institutes in Ethiopia might no longer be accepted by society, thereby endangering the country’s overall education system.

As the previous discussion and points mentioned in the “Background of the Study” indicated, the quality of training in TVET colleges is deteriorating. The problem is caused by the low quality of training, and observed in materials, trainers, and curriculum
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Factors Influencing the Quality of Training in TVET, or a process factor influencing output. Thus the study attempts to answer the following questions:

- In what ways is the quality of training influenced by educational facilities and infrastructures?
- To what extent does the academic qualifications of instructors influence the quality of training?
- Is the quality of teaching/learning process influenced by the curriculum?
- To what extent does the competency of managers of government TVET colleges influence the quality of training?

II. Literature Review

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. 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: 170).

1. Historical Development of TVET in Ethiopia

Throughout the world, Ethiopia is well known for its historical sites such as Axum, the Lalibela churches, and Gonder. After the golden age of art and technology of the Axumite Kingdom, technology seemed to decline in Ethiopia for a long time, though the reasons why technological development did not continue have not been properly examined by researchers. During the Italian occupation (1935-1941) it is said that some TVET schools were established in line with Italian colonialist ambitions. Soon after the restoration of the Ethiopian government, enrolment continued to increase at Addis Ababa Technical School and Addis Ababa commercial school. The government was faced with the task of rebuilding after the war and therefore needed to educate and train people in skills in many areas. To meet the skilled manpower requirement of the industrial and commercial sectors, vocational and technical schools were established. According to Wanna (1996: 298), Addis Ababa Technical school (1942), Addis Ababa commercial school (1943), Addis Ababa building trade school (1940), Ambo agricultural school (1946), Jemma agricultural school (1944), W/o Siheen comprehensive secondary school (1943), and Bahir Dar polytechnic school (1964) were established. The graduates of these schools were employed in the commercial and industrial sectors according to their training. However, the relatively fast increase in the number of graduates from academic and general secondary schools was not accompanied by an equal rise in employment due to a lack of the skills required by the employing agencies. The remedy for this problem was, as noted by Girma, Meharie, and Nigatu (1994: 10-11), introducing a curriculum which would enable students to acquire employable skills and improve the
skill standards to the required level.

In a bid to make the secondary school curriculum more practical, the concept of a comprehensive program was introduced in the 1960s with the main objectives of preparing students for work, the appreciation of the dignity of all labor, and the promotion of skills of efficiency and workmanship. The first general secondary school converted into a comprehensive secondary was W/rosiheen School in Dessie (Girma, 1994: 11).

After the death of Minilek II in 1913, Haileselassie continued the effort to promote modern education. He was supported by protestant and catholic missions in Ethiopia. His efforts were not only aimed at promoting academic schooling but also to promote technical schools, like Addis Ababa technical school, which could help solve the problem of a lack of technical manpower at the time.

As time went by, the training given in comprehensive secondary schools needed revising (Wanna, 1996: 299). In 1978/1979, a study was made by MoE to review the quality of training in comprehensive secondary schools. The results of the study recommended that a few comprehensive secondary schools be selected and strengthened to give effective training. As a result, 14 consolidated government training schools and 3 non-government schools were established. These schools were organized to admit students who completed Grade 10. There were two streams in secondary schools—academic and vocational. Students who performed well in completing Grade 10 and who were interested in entering a technical school were assigned and trained for three years.

Wanna (1996: 299) indicated that the aforementioned vocational/technical schools had been in operation since 1984 as a ‘10+3 program’ and all 14 government technical schools were managed by the Ministry of Education. Of the 14 technical schools, Entoto Vocational and Technical School, General Wingate Construction School and Addis Ababa Technical School were in Addis Ababa. All the technical schools continued providing their training at the 10+3 level up to the 2000/2001 academic year. In 2001/2002, the new education and training policy came into effect and 10+1, 10+2, 10+3 TVET programs began.

In line with the education and training policy of 1994, 25 skills development centers were opened in 1997 in different regions, according to (Teklehaimanot, 2002: 7).

Based on the 1995 regulation (according to education and training policy P: 32, 3.9.6) many private institutions started giving training in 10+1, 10+2, 10+3 and 10+4 in Addis Ababa and in the regions based on the curriculum prepared by Ministry of Education. The responsibility of control and supervision was given to regional education bureaus (Teklehaimanot, 2007: 7). A national TVET capacity-building taskforce was established by the prime minister’s office to study ways of enhancing the TVET. Accordingly, the strategy was set and the implementation of an expanded, diversified and integrated TVET system began in the 2001/2002 academic year when over 50,000 TVET trainees (including agriculture) were enrolled in 169 government and non-government institutions, using new curriculum and modules of training (Teklehaimanot, 2002: 2).

Starting from 2001/2002, the TVET program came into practice according to the 1994 education and training policy. Students who completed Grade 10 and were unable to continue academic learning were assigned in 10+1, 10+2, 10+3 (MOE, 2002: 2). In an Ethiopian context, the term TVET combines theory and practice elements of education, such as specific calculation, knowledge about certain materials, working methods and
also practical training through instruction in the workshop of an institution or practical work in an enterprise (MOE, 2002).

2. Concept of Quality in Vocational Education and Training

There are as many theories of quality as there are writers. These different views of quality are often confusing and contradictory (Amare, 2005: 2). For instance, Middlehurst (1997: 46) viewed quality as a spectrum between two polar 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. However, quality in higher education is divergent and controversial.

The definition given by Mosha (1998: 38) is 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. Today, nobody questions the importance of quality. Assuring and enhancing the quality of teaching and learning in higher education is a major objective. To that end, Harvey (1994: 47) and Middlehurst (1997: 48) distinguished five perspectives of quality - quality as exceptional, perfection, fitness for purpose, value for money and transformation.

2.1 Quality as Exceptional or High Standard

Delivering exceptional performance is attainable only in limited circumstances. This can happen only when the very best and brightest students are admitted to the system, mainly in world-class universities (Firdissa, 2009: 19). According to Harvey (1994: 70), this aspect considers quality as something distinctive and elitist. Moreover, it is a view of quality as exceeding very high standards. In education, this notion of quality tends to focus on inputs and outputs. For example, a TVET that attracts the best students and provides them with the best resources will excel. Regardless of the process by which students learn, excellence remains focused on the level of inputs and outputs as an absolute measure of quality often unattainable by most. Sallis (1993: 22) said that the absolute concept of quality is unaffordable for all educational institutions, especially in less developed countries education with absolute quality is unthinkable. According to Becket and Brookes (2006).

2.2 Quality as Perfection or Zero Defects

Quality as perfection deals with producing consistency through continuous improvement by adopting total quality management (TQM) to create a philosophy about work, people and human relationships built around shared values. This aligns with a positivist paradigm that espouses the belief that the world is definable, fixable, discoverable and describable. Hence, quality as perfection focuses on the process and sets specifications that aim to meet it perfectly (Harvey and Knight, 1996: 171). This notion of quality is
perhaps applicable to administrative tasks such as the maintenance of students’ records, but it does not fit well with the idea of expository learning.

Quality in education is difficult to define and measure (World Bank, 1995: 2). Regarding this, argued that a discussion on the quality of education usually focuses on the level of pupils’ achievements in examinations, parents’ satisfaction with the outcome of education, relevant skills, attitude and knowledge acquired for life after schooling, and the condition of the learning environment. However, some of these aspects are subjective and therefore difficult to measure. 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.

Quality assurance as a whole is a range of actions and mechanisms that support quality in training. Moreover, quality assurance is about ascertaining the existence of quality or taking actions to ensure the existence of quality. This view is closely linked with systems where the emphasis is on accreditation, or on the public guarantee of quality. Quality assurance is also identified with improvement, and therefore it follows the process of accreditation or licensing, through which a basic measure of quality is established. A well-established accreditation process has a major impact on the quality of training since each and every aspect of the quality of training should pass through predetermined criteria to be fulfilled by the trainee or training institute.

III. Research Methodology and Data

1. Research Design

The objective of this study was to examine the factors that influence the quality of training in vocational education and training colleges. A descriptive type of study using the survey method was designed to obtain an insight into the ways training colleges in the city of Addis Ababa currently function, and isolate the factors that have an impact on the standard of training in TVET colleges. Descriptive research involves a clearly defined problem and definite objectives (Best and Kahn, 1989: 18). Since it is appropriate to describe an ongoing process and trends that are developing, and is useful for the purpose of identifying standards against which the existing condition could be compared, the aforementioned design was employed. More specifically, the design was selected in order to assess the current status of training in industrial technology by taking into account the factors influencing the quality of training in TVET colleges in Addis Ababa.

Both primary and secondary sources were used to generate data for the study. Primary sources of data were academic vice deans, instructors and trainees. Policy documents, books, journals, and legal documents were used as secondary sources.

2. Samples and Sampling Techniques

2.1 TVET colleges

The total number of government TVET colleges is six. Since the population is
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- The number of sample colleges is three. As the number of colleges offering training in the field of industrial technology is three, these three were selected purposely.

2.2 Academic Vice Deans

- The total number of academic vice deans is six. 50 percent were selected in order to include a larger sample size. As a result, the number of sample deans was three. One academic vice dean was selected from each of the selected colleges in order to include a representative from each college. Of the two academic vice deans found in each college, after examining records from personnel offices one was selected on the basis of his/her being more experienced, qualified and the length of time she/he spent in the respective college, thus providing sufficient amount of relevant information.

2.3 Instructors

- The total number of instructors is 67. Roughly 33 percent were selected in order to include a larger sample size from the population. Stratified sampling techniques were employed to select samples as there are variations in sex and qualification among the instructors. Therefore the total number of sample instructors is 23. This includes 21 males and 2females. There are 7 second degree holders and 16 first degree holders.

2.4 Trainees

- Considering the similarity of students in most characteristics such as age, sex and interest in an area of training, from the total number of trainees (1,625) 10 percent of the students were selected as samples.
- Stratified sampling techniques were employed to select samples from different department, sexes and levels. Thus, the total number of sample students is 162. This includes 65 level II, 70 level III and 27 level IV regular students. Level I trainees were not included in the study as they were not in the colleges long enough to be in possession of the knowledge and experience necessary to generate the data needed to answer the basic questions of the study. In terms of department, general metal fabrication and assembly (male 75 and female 7), electricity and electronics (male 28 and female 12), and automotive (male 33 and female 8) are included.

Table 1: Samples of the Study (Colleges, Academic Vice Deans and Instructors)

<table>
<thead>
<tr>
<th>No.</th>
<th>Colleges</th>
<th>Academic Vice Dean</th>
<th>Instructor</th>
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<tr>
<td></td>
<td></td>
<td>Sex</td>
<td>Sex</td>
<td>Qualification</td>
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<td></td>
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<td>M</td>
<td>F</td>
<td>M</td>
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<td></td>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>1</td>
<td>Misrak</td>
<td>-</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Ethio-China</td>
<td>1</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Tegbare-ed</td>
<td>1</td>
<td>-</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2</td>
<td>1</td>
<td>61</td>
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### Table 2. Samples of the Study (Trainees)

<table>
<thead>
<tr>
<th>No</th>
<th>Colleges</th>
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<th>Electricity</th>
<th>Auto Mechanics</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>F</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>Misrak</td>
<td>25</td>
<td>33</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Ethio-China</td>
<td>15</td>
<td>20</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Tegbare-Ed</td>
<td>35</td>
<td>47</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>75</td>
<td>100</td>
<td>8</td>
<td>100</td>
</tr>
</tbody>
</table>

### Figure 1: Educational Qualification of Instructors

- 61% BA/BSC Degree
- 15% MA/MSC Degree
- 24% PhD Degree
- 0% Diploma

### Figure 2: Teaching Experiences of Instructors
3. Instruments of Data Collection

The instruments used to gather data were questionnaires, interviews, observation check lists, and document analysis. Cresswell (2003: 62) stated that employing multiple data collection instruments helps the researcher to combine, strengthen and amend some of the inadequacies and to triangulate data. Accordingly, an observation checklist was used as the main data gathering instrument whereas interviews, questionnaires and document analysis were used to enrich the data obtained.

The observation checklist was used as the main data gathering instrument since the purpose of the study was to examine the quality of training. The observation checklist consisted of items that focus on the adequacy of buildings, libraries, laboratories, research and development centers, computer laboratories, classrooms, and workshops.

Questionnaires were used to collect relevant and first-hand information from instructors and trainees. Two types of semi-structured questionnaires were prepared for instructors and students in the English language, as English is used as a medium of instruction. Instructors and students have the educational level and degree of exposure needed to understand the questions and respond to them. The researcher employed questionnaires and the observation checklist as the main data gathering instruments because they are easier to handle and simpler for respondents to answer and the researcher can observe the reality against the standard within a short period of time (Koul, 2008: 146). It allows respondents to answer questions anonymously and enables the researcher to use a larger size of representative samples as sources of data.

Unstructured interviews were conducted with all three academic vice deans selected in order to obtain detailed information about the quality of training. This tool was used since it gives more freedom to interviewees to express themselves and allows the researcher to benefit from information obtained from a more exhaustive treatment of the case under consideration (Koul, 2008: 176).

Furthermore, document analysis was used to strengthen the data obtained through questionnaires and an observation checklist. Therefore, TVET documents, journals, articles and statistical annual abstract reports were examined. In this respect, Best and Kahn (1989: 25) stated that document analyses are important as relevant sources of data and useful in yielding information and exploring educational practice.

Before the actual study was carried out, a pilot study, or tryout of instruments, was made at Selam TVET College. The purpose of the pilot study was to make the necessary clarifications to the questionnaire and to identify some procedures that could help to collect data for the actual research. Accordingly, the questionnaires were distributed to 10 instructors and 15 trainees. Using SPSS Statistical software (Chronbach alpha test), the questionnaires to be filled out by instructors and students have a reliability coefficient of 0.931 and 0.907 respectively. This shows that the questionnaires have a reliability measurement of 93.1 percent and 90.7 percent respectively. Moreover, a manufacturing technology instructor from Selam College was consulted to check the clarity of the questionnaires. On the basis of the feedback obtained from the pilot study and comments from the instructor, some improvements were made on instructions and sequences of a few items. The questionnaires were corrected, refined and made ready for the final study without any deletions. A thorough editing of the grammatical and linguistic aspect
of the questionnaires and checklist was conducted by senior English teachers at the college. The technical relevancy of the content of the questionnaires and checklist was edited by subject matter specialists in the college.

Furthermore, before administering the questionnaires for data collection in sampled government TVET colleges, respondents were informed about the purpose of the study and how to fill in the questionnaires by the researcher. An interview was also conducted through disclosing the purpose of the study based on the permission and willingness of respondents by the researcher. Finally, the observation checklist was filled in and document investigation was also made by the researcher.

Quantitative data obtained through questionnaires were analyzed using percentages, means, standard deviation and chi-square test, followed by discussion of the most important points. The data gathered through open-ended questions, interviews, an observation checklist and document investigation were analyzed qualitatively through descriptive narration.

Moreover, the researcher used chi-square (X2) test at 0.05 level of significance to determine the differences between the responses of the sample groups on the same issue. Best and Kahn (1989: 25) stated that data gathered by the use of tools such as interviews and those extracted from documents could be analyzed qualitatively.

IV. Conclusions and Recommendations

The main purpose of this study was to understand and assess the current status of training quality by taking into account quality indicators with particular reference to government TVET College in Addis Ababa.

To collect relevant data on the topic, the study was carried out in three government colleges in Addis Ababa. Descriptive approach was employed as a method of the study. The sources of data were instructors, students and academic vice deans of the three government TVET colleges. To seek answers to the above research questions, the data were gathered through questionnaires, interviews, an observation checklist and document analysis. The questionnaires were filled out and returned by 67 instructors and 162 students selected through simple random sampling and stratified random sampling techniques respectively.

Interviews were conducted with three academic vice deans, who were selected by using the purposive sampling technique. In addition, an observation checklist was filled in by the researcher with respect to the availability of educational facilities and infrastructures, and a document investigation was made. The data obtained through the above instruments were analyzed quantitatively using percentages, means, standard deviation and chi-square test, and qualitatively using descriptive statements. Finally, based on the analysis of the data, the following major findings were obtained from the study.

The educational qualifications, staff ratio and teaching experience of the academic staffs were found to be unsatisfactory. The findings of the study shows that 61 percent of instructors in the sampled government TVET colleges were B.A/BSc degree holders, while only 10 percent were M.A/MSc degree holders, 10 percent diploma holders and
there were no PhD degree holders. This does not meet the required minimum standard set by MOE (2006: 30) to give instruction at TVET level of at least 30 percent M.A/ MSc degrees and 70 percent B.A/BSc degree holders. As shown in the study, the majority of instructors (54 percent) have more than 6 years teaching experience, which is promising for the improvement in the quality of education. However, 46 percent have 1-5 years of teaching experience, which in turn affects the quality of education in a negative manner.

The finding of the study also reveals that the adequacy of on-the-job training opportunities given to academic staffs was discouraging. The proficiency of teaching staffs was not appreciated in transmitting enough knowledge to students, in problem–solving studies and research, and in assisting, guiding and counseling students. The finding of the study also illustrates that due to the high numbers of students, the teaching staff/student ratio in the sampled government TVET college is more than 1: 40, well above the 1: 25 national standard laid out for TVET colleges (MOE, 2006: 26).

The availability of educational facilities and infrastructures were not promising to ensure quality of education. The finding of the study indicates that educational facilities and infrastructures were not encouraging both in quantity and quality/effectiveness to maintain a good and acceptable quality of training. The finding of the study also reflects that the majority of respondents, 93 percent of instructors and 81 percent of students, replied that the class size was found to be above 41 students per class. The quality of leadership and management of government TVET colleges with respect to their responsibilities and duties was found to be unsatisfactory. The finding of the study depicts that the officials of government TVET colleges were competent enough in planning, organizing, coordinating, scheduling and controlling. However, they had failed to accomplish their tasks such as creating a positive working environment, conducting research and problem–solving activities, managerial and academic decision-making, ensuring academic excellence and mobilizing resources to fulfill educational facilities.

Moreover, the finding of the study shows that with the exception of course guides and teachers’ handouts, other curricular/instructional materials were found to be inadequate to give an effective instruction at TVET level. The finding of the study illustrates that government TVET colleges faced an implementation bottleneck with respect to the teaching–learning process. The finding of the study shows that instructors were not dedicated in using various strategies to address different learning styles, to cover the course instruction on time, or to provide academic advice and tutorial support to students. As pointed out in the study, the majority of respondents confirmed that teacher- centered methods were predominantly used by instructors compared to learner- centered methods of teaching. In particular, the lecture method was frequently used by instructors. Although formative continuous assessment focuses on monitoring learning progress while the teaching–learning process is undertaken, most instructors use summative evaluation more to assess their students’ academic performances in the form of mid and final exams to achieve a passing grade. This finding contradicts the MOE recommended ratio of 70 percent continuous assessment and 30 percent final exam.

From the major findings of the study, the following conclusions were drawn. With particular reference to educational inputs; qualification and teaching staff were found to be below the essential required minimum standard set for government TVET colleges. Similarly, the teaching load of instructors was also found to be high due to
high section/classes of students. As a consequence, it is becoming difficult to maintain quality in the teaching–learning/training process.

Although quality demands qualified and outstanding academic staff, a quarter of the instructors in the sampled TVET colleges had not taken part in formal teacher training and had not received on-the-job training opportunities. Similarly, the support staffs for libraries, laboratories, pedagogical resource centers, and computer and internet services were not encouraging to promote quality of training.

Furthermore, the location of TVET colleges is not suitable for the smooth functioning of the teaching–learning process. Learning resources such as buildings, classrooms, library, workshops, laboratory, computers, offices, reading rooms, etc were also found to be below standard in quantity and quality. The class size for lectures as well as practical classes was also very small to provide students with individualized instruction and practical activities. As a result, it was difficult to undertake an effective teaching – learning process.

Concerning the educational process, the quality of leadership and management of government of TVET colleges was not able to create a positive working environment. Thus, there was an absence of the strong relationship between academic staff members and the management bodies that is needed to ensure academic excellence. This resulted in a shortfall in the provision of quality teaching, learning, project and research and development.

Similarly, less diversified teacher-centered methods of teaching, namely lecture and demonstration methods, were predominantly used by instructors as compared to more diversified constructivist methods of teaching. Furthermore, summative evaluation was most frequently used by instructors in the form of mid and final exams to determine a pass/fail as compared to formative continuous assessment which was less frequently utilized. This had the effect on the system of failing to properly identify and produce competent graduates.

Therefore, it is possible to conclude that the current status of quality of training in government TVET colleges is not promising when evaluated from the point of input, process and output indicators of quality in education and training. In line with the above findings, the researcher asserted that educational and training inputs, processes and outputs are status indicators of educational quality.

Based on the above conclusions, the following recommendations should be looked at critically by the concerned bodies to alleviate the problems of quality of TVET training which are associated with educational inputs, processes and outputs. First, the educational qualification of the majority of instructors was below the required minimum standard set (MOE, 2006). Hence, TVET colleges should provide instructors either with sponsorship to upgrade their educational level or employ additional masters degree holders teaching staff to maintain quality in the teaching-learning process. Second, the teaching staffs were not competent enough in playing their roles and accomplishing their responsibilities due to the lack of pedagogical knowhow and on-the-job training opportunities. Thus, it is imperative to introduce a teachers development program to enhance those on the frontline of education.

Third, the availability of educational facilities and infrastructures is essential to improve quality of education. Thus, the management of government TVET colleges
should equip their institutions with the necessary educational facilities by allocating more budget funds. As they are the most important substances of quality in education, curricular/instructional materials should be fulfilled by preparing and purchasing. TVET colleges to give quality training at different levels. Finally, instructors at government TVET colleges have not taken on a sense of ownership in improving the standards of the instructional process. Therefore, significant attention should be given to alleviate the problems through employing various learning strategies to address different learning styles, making students participate in problem-solving activities, adjusting appropriate project, R&D and academic advice to trainees.

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## Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAU</td>
<td>Addis Ababa University</td>
</tr>
<tr>
<td>CSA</td>
<td>Central Statistical Authority</td>
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<tr>
<td>ESDP</td>
<td>Education Sector Development Program</td>
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<tr>
<td>EOS</td>
<td>Ethiopian Occupational Standard</td>
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<tr>
<td>ETQF</td>
<td>Ethiopian TVET Qualifications Framework</td>
</tr>
<tr>
<td>GTZ</td>
<td>German Agency for Technical Cooperation</td>
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<tr>
<td>HERQA</td>
<td>Higher Education Relevance and Quality Agency</td>
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<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>IPO</td>
<td>Input Process Output</td>
</tr>
<tr>
<td>MOE</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-government Organization</td>
</tr>
<tr>
<td>NQF</td>
<td>National Qualifications Framework</td>
</tr>
<tr>
<td>TQM</td>
<td>Total Quality Management</td>
</tr>
<tr>
<td>TVET</td>
<td>Technical Vocational and Educational Training</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nation Education and Scientific Organizations</td>
</tr>
</tbody>
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