2022-08

Current Status of Competency-Based Training in Technical and Vocational Education and Training of Woreta Tvet College

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CURRENT STATUS OF COMPETENCY-BASED TRAINING IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING OF WORETA TVET COLLEGE

BY

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AUGUST, 2022

BAHIR DAR, ETHIOPIA

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Current Status of Competency-Based Training in Technical and Vocational Education and Training of Woreta TVET College

BY

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A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Education in Teacher Education and Curriculum Studies

Advisor's Name: Chanyalew Enyew(PhD)

August, 2022

Bahir Dar, Ethiopia

DECLARATION

This is to certify that the thesis entitled "Current Status of Competency-Based Training in Technical and Vocational Education and Training of Woreta TVET College", submitted in partial fulfillment of the requirements for the degree of Master of Education in department of Teacher Education and Curriculum Studies, College of Education and Behavioral Sciences, Bahir Dar University, is a record of original work carried out by me and has never been submitted to any other institution to get any other degree or certificates. The assistance and help I received during the course of this investigation have been duly acknowledged.

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Approval of thesis for defense

I hereby certify that I have supervised, read, and evaluated this thesis titled"Current Status of Competency-Based Training in Technical and Vocational Education and Training of Woreta TVET College" by Yitayal Tegen prepared under my guidance. I recommend the thesis be submitted for oral defense.

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Approval thesis for defense result

As members of the board of examiners, we examined this thesis entitled "Current Status of Competency-Based Training in Technical and Vocational Education and Training of Woreta TVET College" by Yitayal Tegen. We hereby certify that the thesis is accepted for fulfilling the requirements for the award of the degree of "Master of Education".

Board of Examiners

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ACKNOWLEDGMENTS

ABSTRACT

The Ethiopian TVET system has been guided by the competency-based training since 2008 with the expectation of producing competent workforce in various occupational fields. The major purpose of this study was to investigate the current status of TVET in Woreta TVET College. The research method used in the study was a descriptive survey method. The sample population used in the study consisted of 32 trainers and 83 trainees selected by proportionate stratified sampling method, 1 dean and 5 department heads were selected by comprehensive sampling method in the TVET College. The data obtained through interview with dean and department heads in Woreta TVET College were analyzed qualitatively along with the quantitative ones. Moreover, relevant data obtained from document was also incorporated in this study. The collected quantitative data were processed using SPSS (Version-20) then analyzed using descriptive statistics; like mean, weight mean, frequency and percentage. Based on the analysis made, the following major findings were obtained. Trainees and trainers know the principle and the objectives of CBT program; adequate orientations were given about CBT delivery system. The theory and practice are integrated on delivering competency based training; it was delivered by demonstration of what trainees have learned in practice. The study found that there is lack of training materials and infrastructural facilities to conduct competency based training i.e. inadequate electricity supply, insufficient training and workshop room. The availability of instructional materials was also not functional to implement CBT. Therefore, it is recommended that the TVET College workshops and laboratories must be equipped with adequate and necessary training material and equipment. TVET College must devise mechanisms to reduce financial constraints. In addition to this, government bodies and stakeholders had contributed to solve the lack of workshop materials and facilities in line with CBT requirements.

Keywords: *Competency, Implementation, Trainees, Trainers and Training*

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ACRONYMS

CBET	Competency Based Education and Training
CBT	Competence Based Training
FDRE	Federal Democratic Republic of Ethiopia
GAMF	General Assembly Metal Fabrication
ILO	International Labor Organization
MoE	Ministry of Education
NOS	National Occupational Standards
OS	Occupational Standard
SPSS	Statistical Package for Social Science
TVET	Technical Vocational Education and Training
UNESCO	United Nation Educational Scientific and Cultural Institution

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

Technical and Vocational Education and Training is the three educational sub-sectors (general education, TVET and higher education) that the government of Ethiopia has given high attention. Its primary goal is to create competent and self-reliant citizens to contribute to the economic and social development of the country. This is assumed to improve the livelihoods of all Ethiopians by reducing poverty. The overall goal of the national TVET strategy is to create a competent, motivated, adaptable and innovative workforce in Ethiopia (MoE, 2008). 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 (Amare Zewdu & Temechegn Aseres, 2002). In addition Yihune Haymanot (2011) explains that Technical Vocational Education Training (TVET) plays important role in equipping individuals with relevant skills and knowledge for the job market. In this way, TVET has demonstrated significant expansion in the Ethiopian Education sector over the last decade.The reform made in 2008 envisaged that it would transform TVET delivery from input-oriented to an outcome based one (MoE, 2010).

According to Tovey *et al*.(2004), CBT is a system of training which is geared towards specific outcomes. It is based on three domains thinking, doing and feeling (cognitive, psychomotor and affective). The most effective CBT happens when all three domains are involved (Flesher, 2018). CBT differs from traditional training because it focuses on what individuals know to reach pre-determined standards (Armstrong & Taylor, 2014). It provides employees with the learning flexibility they like, while still ensuring they have the skills necessary to be successful in their job (Flesher, 2018). It is also known as the head, the hand, and the heart- what you know, what you can do and how willing you are to do it (Acakpovi & Nutassey, 2015). Even though CBT occurs when all the three are domains are involved; because of resource constraint in Woreta TVET College cognitive domain is mostly applicable in the training processes.

According to Akudugu (2017), the origins of competency-based training can be traced back to the 1940 World War II period. In World War II and the Cold War, the United States military encountered a range of human resource development challenges, ranging from the problem of preparing large numbers of competent combatants to the training of personnel to operate rapidly evolving advanced weapons systems. In this period, the United States military employed large numbers of specialists to study and overcome these challenges. By the time the Sputnik crisis quickened the research efforts of civilian educational authorities, the United States military was already well advanced in its attempts to find scientifically-grounded solutions to the question of how to design and execute the most effective training (Acakpovi & Nutassey, 2015). The importance of the military contribution to the development of competency-based training can be gauged by events such as the United States Office of Naval Research-sponsored conference at the University of Pittsburgh in 1960. From the conference held, the purpose was on investigating as to how advances in education arising from research into the needs of the United States military could be applied to general problems in education and training. Over the next few years, members of this group laid much of the theoretical groundwork of Competency-based Training through the development of the theory of educational technology (Akudugu, 2017).

For the past decades, competency-based training has been known everywhere around the world. Its awareness and focus have increased due to the talents of individuals mostly on the ability to achieve competitive advantage and effectiveness. Since 1970s, the concept of competency-based training has gained focus on international movements and institutions (Wongnaa & Boachie, 2018). Competency is the standard that must be owned by employee in carrying out the work and function properly. It includes some attributes attached to an individual are combination of knowledge, skills and attitude (Prabawati *et al*., 2018). Similarly, Zeleke Abiye (2007) stated that Competencies are observable behaviors, knowledge, skills, and abilities.

Competency-based training is emphasized in TVET programs. CBT plays important roles in providing the skill sets required by enterprises and across national economies, supporting pathways into employment for young people, strengthening mobility between occupations for experienced workers and supporting the development of new skills and assisting workers to be prepared to change or progress in their occupations (Bateman *e*

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al., 2012). Making people competent has a more positive, and also a more practically relevant, trainers also feel that, because of its practical relevance, competency based education can motivate students to finish their school much more than traditional education can. Moreover, through their direct contacts with work organizations, TVET institutes review how modern companies, occupations and jobs are changing and encouraging schools to deliver graduates with broad skills in addition to specific knowledge (Biemans *et al.,*2004). It is believed that, by adopting the CBT system, technical institutions would be able to produce people who are competent in their workplaces and who can spearhead the country to its desired vision (Mkonongwa, 2018; Rutayuga, 2014, Kafyulilo, *et al*. 2012)

Many organizations in the 21st century are going through different challenges like global comparison, rapidly changing market, technological changes and expectation from customers. An organization must come up with responses like being able to manage change, manage diversity, establishing the value of a business and meeting consumer's expectations. Therefore competency-based training is required for employees to meet such goals and overcome challenges being faced (Phan & Pham, 2018). When the organization invests in improving the knowledge and skills of its employees, the investment is returned in the form of more productive and effective employees, thus the focus is on individual performance or team performance (Wongnaa & Boachie, 2018). Since 2008, the Ethiopian TVET has provided outcome based training through different levels in each occupation (i.e. from Level 1 to Level 5) which is totally different from the old TVET system that was 10+1, 10+2 and 10+3 systems (MOE, 2008), which was a radical shift in TVET policy (Getachew Habetamu, 2016). Thus, in Ethiopia, various policies imposed on training and developments have been developed by a public and private organization (MoE, 2008).

Despite the design for different competency-based training models at work institutions, yet some institutions have succeeded while others have not (Yohana, 2020). This is due to, all institutions have not enough time and resources to develop, manage and implement such competency-based training programmes for their employees (International labor organization, 2010). Trainers in institutions are required to ensure that competency-based training programs have been implemented effectively even though it may take some years to ensure that their teams do implement such programmes. On the other hand, it is

believed that some institutions take into account the importance of competency-based training to go beyond the established targets of an institution and develop several talents (Wongnaa & Boachie, 2018). Alemayehu (2010) stated that the Ethiopian government has entrusted the responsibility of preparing skilled labor force and providing entrepreneurial; skills in varying levels to the technical vocational education and training (TVET) system.

Training provider institutions may face many problems on their road to create competent trainees. This may be due to their limited understandings on the outcomes and predefined standards' on what trainees can do. Nevertheless, this can be accomplished by using actual training equipment, materials, real work place and competent trainers that contribute to accomplish their actual job requirements (Bezawork, 2010). The other factor that makes the implementation of CBT programs difficult was the provision of inadequate learning infrastructure. The CBT offering TVET colleges were under expected, there were inadequate training materials, workshop layout, equipment tools and technologies (Bantalem Demelashe, 2014). Therefore, the researcher was initiated to investigate the current status of competency-based training program in Woreta TVET College.

1.2. Statement of the Problem

The government of Ethiopia considers TVET as one of the core development strategies through which to achieve social and economic properties for its citizens. It is caring out an intensive expansion and restructuring works in the sector in order to boost both quality and enrolment in TVET sector. The competency-based training ensures that the TVET system in Ethiopia is better placed to serve the skill needs of employers and the labor market. But implementing the proposed CBT faces some problems. Trainees might not get the knowledge skills and attitude needs (MOE, 2008).

According to Caroline (2013), CBT is an expensive form of education and training because of its emphasis on equipment, well equipped laboratories and other teaching and learning materials for training. All these come with huge cost implications especially when the number of trainees increases making it a challenge due to budgetary constraints of TVET Institutions. Work place experience of learning in the CBT program is important of the training, because it affords the trainee the chance to put into practice in a real work situation what he/she were taught in order to display his/her competency.

There is a gap in the implementation of the occupational standards (that define competencies and which describe good work practice) and National Occupational Standards (NOS), in the institution. Competence based education and training possession and application of acquired knowledge, development of skill and change in behavior attitudes, to accomplish a work to the standard expected in the work place according to occupational standards which are classified by the unit of competence. More emphasis is put on performance in order to produce competent work force trainees, in relation to the demand of industries level or companies need with an education and training program that should be understandable and visible in both design and measurement of accomplishment (MOE, 2008).

In Ethiopia the effective implementation of CBTface manychallenges. Some of the major challenges include: low quality and theory-driven teaching due to resource constraints, lack of skilled TVET teachers, resource shortage, lack of adequate place of work and running costs (MoE, 2008). Updating and revising of curricula mostly takes place after a major crisis in the labor market or problems of graduate's unemployment. There are no systematic evaluation, graduate tracer systems, and effective two-way linkages between industry and TVET (Abdule, 2009). In addition Muneja (2015) stated that challenges in the effective implementation of CBT in TVET colleges are lack of updated training materials and tools, lack of skilled manpower and not fully practicing according to the current TVET strategy. Moreover, due to other challenges they faced in the training environment, use of too old items of equipment that have been used for decades, lack of adequate facilities and less awareness of CBT in the TVET institution. These are some of the factors that are combined to reduce the effectiveness of CBT in meeting the required knowledge, attitude and skills (HaymanotYihunie, 2011).

Although TVET in Ethiopia opted for a competency-based system, this does not necessarily mean that choosing CBT as a focal point of TVET alone is sufficient to realize competency- based TVET objectives. Putting CBT into practice is challenging as it is a radical educational innovation in vocational education requiring the fulfillment of many conditions (Wesselink, 2010). For example, CBT requires a total transformation of beliefs, practices and understandings of the teaching and learning process and assessments, which is challenging for teachers who used to work within the traditional educational setup

(Gulikers, 2009; Kouwenhoven, 2003 & Wesselink, 2010). Seezink (2009) stated that CBT impacts the roles and associated tasks of teachers. In the same manner, Kwakman (2003) stated that teachers of CBT do not transmit 'ready-made knowledge' any more, but assist the students to inquire and construct their own knowledge. This implies that TVET teachers should develop adequate knowledge and understanding, not only of the principles that govern the CBT system, but also of what CBT entails in practice before implementation. Teachers also need to be prepared in advance for the effective implementation of CBT. Preparing these teachers for CBT is not an easy task for developing countries like Ethiopia as it requires much time, effort and resources. It also requires the development of a positive mindset towards CBT and the restructuring of the teacher training programs.

In Ethiopia, resources are the major problems to implement CBT especially for practical training. In fact, resource-related problems are also seen in other African countries, where TVET lacks training equipment, tools and training materials (Atchoarena & Delluc, 2001; Ansah & Ernest, 2013). Beshir (2007) conducted a research on the factors which affects the employment of TVET graduate in East showa, and mainly identified that there was a gap between competencies acquired at TVET and requirements of the employers. The current problems of TVET colleges concerning hard training areas are being suffered from lack of appropriate training materials, modules, textbooks, equipment for organizing workshop, and with low commitment of the trainers to reduce the focus on the theoretical approaches training culture due to shortage of educational resources. Similarly research done by Afework Yetbark (2019) in her master's thesis pointed out that TVET institution has faced challenges in implementing the training and smooth conduct of the competence based training scheme. TVET teachers still lack motivation and lack of cooperation from employers is observed in running the CBT. Lack of resources was also among the problems encountered by TVET institutions.

The above stated problems indicate that there are still gaps to implement CBT effectively. However, paying particular attention to the topic under study is so essential because there is no any study conducted on the current status of competency based training in Woreta TVET College. Hence, the researcher had initiated to conduct this research. Therefore,this study tried to explore the current status of TVET College to effectively implement CBT

and filling the gap through investigating the current status of competency based training in Woreta Technical and Vocational Education and Training College.

1.3. Objective of the Study
1.3.1. General objective

The main objective of this study was to investigate the current status of competency based training in Woreta Technical and Vocational Education and Training College.

1.3.2. Specific objectives

In order to achieve the general objective, the following specific objectives have been formulated:

1. To investigate the effective implementation of CBT programmes in Woreta TVET College.
2. To determine the extent of offering CBT programmes in Woreta TVET College.
3. To assess the trainer's qualification and training facilities to implement CBT programmes in Woreta TVET College.
4. To analyze whether traineeshave the opportunity to develop competency and evaluated on the competencies achievedin Woreta TVET College.

1.4. Research Questions

1. What are the level of understanding and readiness of trainees and trainers toeffectively implement CBT programs in Woreta TVET College?
2. To what extent competency based training are effective in Woreta TVET College?
3. What are the qualifications of trainers to deliver competency-based training in Woreta TVET College?
4. Is the availability of training materials adequate to conduct CBT in Woreta TVET College?

1.5. Significance of the Study

This study aims to investigate the current status of CBT in Woreta TVET College, so the results of the study have the following significances:

1. It Provides information for the stakeholders (deans, department heads, trainers and TVET experts) in Woreta TVET College about the current status of CBT implementation.
2. The study helpsfor the trainers to aware thecurrent status of CBT and initiates that to contribute what is expected of them.
3. It can be one input to existing TVET trainees, trainers and administrative bodies to alleviate the problems of implementing CBT.
4. The study encourages other researchers and motivate them to do further studies on CBTimplementation in TVET College.

1.5.Operational Definition of Terms

Competency Oriented: Learning task are formulated to develop competencies that are needed to perform the professional task of the student's future working environment.

Trainees: people who participate in technical and vocational education and training program provided by a training institution with a view to acquiring or upgrading his/her technical and vocational skills.

Trainers: Is an instructor, facilitator, or supervisor who is competent, to facilitate specific occupation in the TVET College.

Traininginstitutions: is an institution that engaged in the provision of technical and vocational education and training program.

1.6.Delimitation of the Study

In considering the time and resource capacity this study was delimited to Woreta TVET College. Furthermore, the study focuses on five fields of study; those are data base management, electrical electronics, surveying, road construction and general assembly metal fabrication. Because, these field of trainings have used different teaching equipment, different instructional materials and tools in their workshops and in competency training.

This study also delimited to the current status of competency-based training in TVET College.

1.8. Limitations of the Study

In this study, there are some limitations that affect the scope and depth of the required information. Since, CBT is moderately new trend in Ethiopia as well as Amhara and thus, acquiring relevant reference materials which are related to the topic were difficult. The other problem that the researcher encountered the study was conducted only in Woreta TVET College due to time and budget constraints.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1. The Concept of Competency

According to Jallow (2011) a competency is a statement of learning outcomes for a skill or body of knowledge. He adds that when students demonstrate a competency, they are demonstrating their ability to do something (showing the outcome of the learning process). Kouwenhoven (2003) also define as it is the capability to choose and apply an integrated combination of knowledge, skills and attitudes with the intention to realize a task in a certain context, while personal characteristics such as motivation, self-confidence, and willpower are part of that context.

Competency is defined as a basic characteristic of an individual that leads to an effective or higher level of performance of the institution. Effectiveness or higher level of performance of a person is determined by factors like personal qualities, motives, experience and behavioral characteristics. Behavioral competencies, technical competencies and National Vocational Qualifications are the types of competencies (Indah *et al.,* 2018). National Vocational Qualifications competencies were developed in the United Kingdom as a fundamental part when developing standards for National Vocational Qualifications and they specify standards for achieving tasks and activities in a way that they can be observed and assessed with an outlook to certification (Armstrong & Taylor, 2014).

Competency can be defined as the capacity to choose and utilize an integrated combination of knowledge, skills and attitudes with the goal to do a task. Knowledge, skills and attitudes serve to realize the standard to perform job-related tasks that typify profession. Several authors offer competence definitions. For example, Garavan and McGuire (2000) define competence as an action, behavior and outcome a person should be able to demonstrate. This definition constitutes what a person can do. Competency might also be viewed from the possession of certain attributes such as knowledge, skills, and attitudes.

Kricher et al (1997) view competency as the ability to choose and use the attributes suggesting that competence is the capability to choose a set of available behavior and to execute suitable skills to meet certain goals. The comprehensive definition covering all aforementioned is offered by Mulder (2001):"Competence is the ability of a person or an organization to reach specific achievements. Personal competence comprise: integrated performance oriented capabilities, which consist of clusters of knowledge structures and also cognitive, interactive, affective an where necessary psychomotor capabilities, and attitudes and values, which are conditional for carrying out tasks, solving problems and more generally, effectively functioning a certain profession, organization, position or role".

Kouwenhoven (2003) also holds that the knowledge, skills and attitudes should be used in an integrated manner although they might be used in varying degrees, depending on the task to be performed. Aschrott (1994) adds that the mental processing of performing tasks requires cognitive monitoring which is called meta-cognition. Competence can be broken down into two types, the core competency and the generic competency (Kouwenhoven, 2003). The former relates to the set of appropriate competencies required to realize a key professional job at a satisfactory level. The latter is associated with 'life skills' including self-concept, values and personality traits

2.2. Concept of Competency Based Training in TVET

Competency based training places emphasis on what a person can do in the workplace as a result of completing a program of training. The emphasis in CBT is on "performing" rather than just "knowing". A competency-based training system includes more than just training courses related to job performance. It identifies the level of competency required for different levels of performance within a given work function. Progress within a CBT program is not based on time. An important characteristic of CBT is that it is focused not only on the actual jobs that are required in the workplace, but also the ability to transfer and apply skills, knowledge and attitudes to new situations and environments (Karim, 2011).

Kaaya (2012) defined CBT as a program of study with clearly defined, concrete and measurable objectives of which every student participating in the program must have demonstrated mastery upon program completion. Often these programs also involve students working at their own rate and structuring their own methods of learning so as to meet these objectives. According to Deißinger & Hellwig (2011) CBT is the specification of knowledge and skill and the application of that knowledge and skill to the standard of performance expected in the workplace. Similarly Anane (2013) described CBT as an industry and demand driven (outcomes-based) education and training program based on well-defined industry generated standards (occupational standards).

CBT programs focus on what the participant is expected to be able to do in the workplace as opposed to just having theoretical knowledge. It is therefore a training program which ensures that learners gain the necessary knowledge, skills and attitudes or values to be successful in the working environment. It is a system of training which geared towards specific outcomes. Competency-based training is based on three domains; thinking, doing and feeling (or cognitive, psychomotor and effective). Competency-based training differs from traditional training approaches because it focuses on what individual need to know to reach pre-determined standards (Armstrong & Taylor, 2014).

2.3. Historical Background of Competency-Based Training

Competency-based training can be traced back to the education of primary and vocational teachers in the USA in the 1970s. Poor learning in vocational education programs was the reason for applying new principles to teacher education. Teaching should be based on the role requirements and standards of the behavior of effective teachers. The National Centre for Research in Vocational Education at Ohio State University started research on "performance-based vocational teacher education" in 1969. Over a period of ten years 100 performance-based modules for vocational education were developed, which were supplemented by modules for adult and special education. In 1977, some 23 states had implemented performance- based vocational teacher education and in the late 1980s the concept shaped many programs of vocational education and training.

Despite skepticism from the very beginning, CBT gradually entered the context of VET in the UK, Australia and New Zealand. Several other countries are currently copying the

concept of CBT by re-inventing or reforming their VET systems. Many hopes lie on CBT respectively because it is an "outcome-based approach" and is seen as a "major driver, incentive and motivator of learning" where the role of individuals is rated higher than that of teachers, government or other stakeholders (Reuling, 2002). Therefore, CBT has both a didactical dimension (competency and qualifications) and a political and social dimension (pathways and opportunities for learning). Consequently, CBT itself may be described as "training which is performance- and standards based and related to realistic workplace practices. It is focused on what learners can do rather than on the courses they have done".

2.4. Elements of Competency-Based Training

According to Anane (2013) competency-based training has four key elements which set out the standards on which certification is based.

Learning Outcomes: focuses on what is expected of the trainees to know and be able to do at the end of the training.

Performance Criteria: What the trainees should know and do in order to achieve the specific learning outcome.

Range Statement: Parameters of learning the trainees should cover in order to be able to perform.

Evidence Requirement: This is the assessment criteria. In CBT assessment is the process of collecting evidence of trainee's performance in order to judge whether or not, or the extent to which the trainees has met the performance requirements. The assessment process includes a variety of approaches:

  I.   **Observation**: observing the trainees while he/she is carrying out the activity.

 II.   **Produc**t: looking at something a trainee has made or done.

III.   **Questioning**: asking the trainee questions which can be answered either verbally or in writing.

2.5. Characteristics of Competency-Based Training

Travers & McQuigge (2013) explained that competency-based training is comprised of several characteristics. These characteristics tend to elaborate on how to identify CBT and how it looks like. The characteristic of effective competency-based training includes: Competencies are carefully selected; supporting theory is integrated with skill practice;

Content of training are specifically related to the skills and abilities required to do a job; detailed training materials are keyed to the competencies to be achieved and are designed to support the acquisition of knowledge and skills; methods of instruction involve mastery learning, the premise that all participants can master the required knowledge or skill, provided sufficient time and appropriate training methods are used; learning should be self-paced; time taken to master the competency is not a big factor; flexible training approaches including large group methods, small group activities and individual study are essential components.

2.6. Bloom's Taxonomy and Competency-Based Training

Bloom's classification of learning behaviors still pervades the instructional design field. He identified three types of learning: cognitive (knowledge), affective (attitude), and psychomotor (skill). As implied, cognitive learning focuses on mental skills, affective learning centers on growth in feelings or emotions, and psychomotor learning deals with manual or physical skills. Beyond the traditional classroom, this taxonomy is very influential in the training world. Trainers frequently refer to Bloom's cognitive, affective, and psychomotor domains as KSA (knowledge, skills, and attitudes). Bloom's Taxonomy and other similar frameworks are subsumed under the label of KSC, short for knowledge, skills, and competences (Winterton, Delamare &Stringfellow, 2006).

Cognitive domain: Six major categories define Bloom's cognitive domain. Starting from the simplest to the most complex, with increasing degree of difficulty and behaviors required, these categories are: knowledge, comprehension, application, analysis, synthesis, and evaluation. Lower level categories are normally be mastered before the learner can proceed upward to the next category.

Affective domain: The affective domain includes how learners deal with emotions, such as feelings, values, motivations, and attitudes. Krathwohl (2002) array affective categories hierarchically from bottom to top as: receiving phenomena, responding to phenomena, valuing, organization, and internalizing values (characterization). Receiving is being aware of or sensitive to the existence of certain ideas, material, or phenomena and being willing to tolerate them. Responding is committed in some small measure to the ideas, materials, or phenomena involved by actively responding to them. Valuing is willing to be

perceived by others as valuing certain ideas, materials, or phenomena. At the point that the learner relates values to those already held and brings them into a harmonious and internally consistent philosophy organization occurs. At this stage, contrasting values and resolving conflicts between them form priorities. Characterization occurs when the learner acts consistently in accordance with the values he or she has internalized.

Psychomotor domain: The psychomotor domain is characterized by progressive levels of behaviors from observation to mastery of a physical skill. This domain was not included in Bloom and Krathwohl's work in the 1950's. Elizabeth Simpson is credited for developing a vertical structure to include perception, set, guided response, mechanism, complex overt response, adaptation, and origination (Anderson, 2001). In perception sensory cues guide motor activity. The set category includes physical, emotional, and mental dispositions that are responsible for individual responses to a given situation. Guided response represents the initial attempt at a physical skill to include trial and error as well as practice leading to improved performance.

2.7. Principles of Competency-Based Training

Olimberio (2010) argued that CBT is comprised of various principles that are considered important for institutions to consider when providing it which includes:

Training is based on a curriculum developed from the competency standards: CBT is offered basing on the curriculum developed from competency standards. Here competency-based curriculum is used so as a plan to show a series of learning experiences to attain competencies elaborated by the institution. The curriculum explains in details resources, facilities, infrastructures, methodologies of training and other related materials required in implementing training. Competency standard is well prepared and written to specify the needed skills, knowledge, attitude and values to perform a particular job and corresponding standards of performance needed in an institution. Employees need to identify such standards (Mulder et al., 2007).

Learning is competency-based or modular in structure: One competency is one module, also some competencies are been grouped into different modules. Each job position is comprised of some qualifications that require certain competencies that an

individual should possess to work. Therefore when an institution plans to conduct CBT for their employees, it is important for employees who are supposed to go for training to learn one competency after another until they are capable to acquire needed competencies of a certain qualification to perform tasks effectively.

Training delivery is individualized and self-paced: When conducting training for employees, trainers need to offer a variety of activities that will give opportunities to employees to work on themselves individually without waiting for their fellows. Also, different materials and resources have to be provided to employees so as they can be able to learn about certain competencies required performing a certain job on their own (Harford *et al.,* 2010).

Training is based on work that must be performed: Here training is been offered to employees basing on work to be performed. For a certain task to be performed there are required competencies that a person should have to meet the expectations of an institution. His means that training offered should relate to the kind of work that an individual is expected to perform.

Training materials are directly related to the competency standards and the curriculum: All learning materials that are used during training have to available to employees. Sometimes such materials that are directly related to the competency standards and curriculum may be unavailable for an employee going for training to access like in bookshops. A trainee needs to gather all necessary resources that will generate effective learning materials and activities to achieve certain criteria on performance based on the competency standards. The curriculum will be used as a guide to train and assessemployees (Wesselink, 2010).

Approved training programs are nationally accredited: Any CBT program should be known and registered under a certain system to be approved. For CBT to be conducted it needs to be approved before going through the process. Such training has to be known to the authorities responsible for approving them.

2.8. Training Methods Used for Competency Based Training

Anane (2013) posited that CBT demands a different approach to teaching and even assessment and certification. This is because conceptually, CBT is different from the traditional system. It is based on defined competency standards which are industry oriented; it is unit based or modular and it can be applied to both formal and informal education and training. For these reasons training or teaching approach requires flexibility. The education and training is more learner-centered (more emphasis is placed on the learner's role in the learning process) than teacher-centered (teacher has control over what is taught and how the learners are given the information they have to learn). Though CBT uses both the teacher-centered and the learner-centered approaches, the emphasis is more on the learner-centered approaches.

According to Anane (2013) the following teaching methods are employed for the CBT programmes:

Direct Instruction Method: It is effective when you have to introduce learners to a new study area or define new concepts and show how they are interrelated or for teaching factual information. On the other hand, because the method relies mostly on one-way communication there are limited opportunities to get a feedback on the learner's understanding of what is being taught and it is not possible to teach psychomotor skills using this method.

Discussion Method: Allows learners to share knowledge and ideas thereby motivating them to achieve more particularly when others respect their contribution. It also helps the teacher to determine whether the learner understands the content of the lesson. On the other hand, there is the possibility of straying from the topic under discussion and dominating learners might influence the group to accept their view.

Small Group Method: Pairing is done in such a way that learners help each other to learn faster than the teacher would have been able to do with the whole class. There may however be difficulties with the physical arrangement of the classroom and individual assessment using group work is difficult.

Problem Solving Method: Very popular teaching strategy for CBT. Provides a challenge to learners; gives them a sense of satisfaction and increases their confidence when they are able to solve new problems and thus gain new knowledge. It also allows the learner to develop critical thinking skills and the ability to adapt to new learning situations. It is however time consuming and because learners sometimes work individually, they may not learn all the things that they are expected to learn.

Research Method: It is used for workshops and laboratory tasks, field experiments, case studies. It encourages learners to investigate and find answers for themselves and to critically evaluate information. It however requires a lot of time and careful planning of research projects for the learner.

2.9. Steps in Creating Competency-Based Training

2.9.1. Analyze training needs

Aboko & Obeng (2015) explained that first thing is to identify the purpose of the training by conducting a training need assessment, identify the tasks associated with the purpose of the training and identify operational, technical, regulatory and institutional requirements to get training specification. Often, the need can be assessed by evaluating workgroup results and interviewing jobholders, managers, and training committees. Any failure in its effectiveness and efficiency will enable the institution to determine the need for training. It is necessary to that trainees training needs to be measured by taking into account their current performance by conducting interviews, survey sessions, observation method or objective records of their performance (Talent, 2014).

2.9.2. Design specific competency-based training

After conducting the training need assessment and knowing the skills, knowledge and competencies gap than its time to establish an adapted competency model aligned with the training specifications, design an assessment plan and design the training plan. When designing specific competency-based training, it is important to select relevant competencies; Select and adapt observable behaviors, determine the relevant competency standards (Phan & Pham, 2018).

2.9.3. Developing the training and assessment materials

Albanese *et al.* (2008) contents of the competency-based training programme have to be identified and decided to ensure effective implementation. All matters regarding the competency-based training programme have to be well covered in this step to achieve training objectives. An expert on competency-based training programme should be capable to decide and explain all contents to be included, as well as to be able to conduct the programme. The trainer needs to consult supervisors and management when identifying training contents to acquire approval regarding the programme designed. It is a stage that the trainer determines sub-tasks and KSA (Knowledge, Skills and Abilities), develop a syllabus, develop milestones and interim competency standards, define the list of assessments and evaluation tools as well as develop educational materials to support the delivery of the course and developing examinations and evaluation while the expected outputs will be training materials, which includes course schedule, training event materials, examinations, practical assessments and other assessments (Tovey, 2004).

2.9.4. Conduct competency based training

CBT focuses on helping learners grow and demonstrate competent performance as prescribed by the industry-approved levels of competency. It is aimed at preparing the person for jobs or becoming more successful on the job (Albanese *et al.*, 2008).

2.9.5. Evaluate the training

Trainees need to receive feedback. This is critical for their growth and development. Training assessment is a method of gathering information to decide on training programs. Institutions use performance evaluation to assess the efficiency and effectiveness of the train's work, which can allow the institutions to identify and improve training needs. A well-structured measurement system can help determine the location of the problem. Evaluation of training can also help improve the quality of training programs, resulting in increased benefits (Armstrong & Taylor, 2014).

2.10. Methods of Competency-Based Training

Competency-based training, like any other training, it uses the same approaches. But, the main focus of CBT is on competencies but also a trainer and trainee relationship. Cohen (2005) explained that two approaches can be used in implementing the effecting training program, and these approaches are on -the - job and off - the - job techniques. Methods to be used to implement CBT programme depends on the approach involved.

2.10.1. On the job training

Job instruction Training

Mulder *et al*. (2006) explained that this is the most commonly used method in the training of non-managerial employees and mostly at industrial organizations. It is used to teach employees practically how to perform their jobs. Here both trainer and trainee are on job and instructions are provided. This training is also known as training through step-by-step, these steps show what is to be done, how to be done and why to be done. The trainer could be either a professional trainer, but very often, the supervisor or a selected fellow employee.According to Cohen (2005), it involves in four main steps. First, the trainee receives a general description of the job; duties and responsibilities involved. Secondly, positioning the trainees at the workplace and demonstrates the steps involved in job performance. Thirdly, the trainer allows the trainee to try out work performance based on the steps involved and correcting the errors committed by them. Finally, the trainee is allowed to perform the job on his or her own.

Coaching

This is another version of the system whereby a senior or experienced employee takes charge of the training and development of a new employee. This suggests a much closer association than master/apprentice and elements of a father or son relationship can exist whereby the mentor acts as an advisor and protector to the trainee (Cohen, 2005). Many institutions use this method in developing their trainees and it is less formal compared to an apprenticeship. Coaching is been provided when it is required and not being part of the programme designed. Coaching method enables trainee to participate effectively, acquire

required knowledge on time and fast feedback. A trainee learns faster when coached (Mulder *et al.,* 2006).

Job Rotation

Job rotation is another version of training that became popular in the 1970s to help relieve boredom and thereby raise the productivity of shop floor workers. It is a management technique used to rotate incumbents from job to job or from department to department or from one plant to another in different geographical areas. The rotation is done on co-ordinate basis to expose the executives and trainees to new challenges (Cohen, 2005). This method involves an employee moving from one job to another. For instance, at banks, this method is used so as employees would be able to manage a different kind of jobs in an institution. Job rotation is important because it enables an employee to become capable to handle different kinds of job, improves basis of transfers and promotions, it reduces the rate of turnover and helps employees to generate a wide view of different processes on performance (Mulder *et al.,* 2006).

Apprenticeship

This is another method of training that an employee learns from another employee who is also an expert. An expert employee has more knowledge and skills that will help another employee who wants to acquire certain skills or knowledge. A classroom may be used so as one can learn from another employee. Apprenticeship method is useful because it involves employee participation that an employee will learn fast, a learner may be real about his or her job experience, there is a close interaction between an employee who should acquire training and an expert and feedback will be generated fast (Mulder *et al*., 2006).

2.10.2. Off the job training

This is a kind of supplement to on-the-job-training. In a dynamic environment where things changes at a fast pace, new ways of doing things are required which cannot be generated by on-the-job training, therefore employees' needs to learn something away from their workplace. Under this method, the trainee learns outside the job and devotes whole time on teach (Cohen, 2005).

2.11. Benefits of Competency-Based Training

There is sufficient evidence that the adoption of a Competency Based Training system improves quality and relevance of TVET institutions. Benefits of CBT are numerous but the most important are that, learners achieve competencies required in the jobs through mastery of skills, the mastery of competencies further acts as a way of building confidence in the trainees, training time is utilized efficiently and effectively as the trainees spend more time practicing acquisition of competencies, while the trainer is a facilitator of the learning process as opposed to a provider of information; the training process accounts for every individual ensuring that each trainer receives adequate attention through evaluating each participant's ability to perform essential job skills (Wello, 2013).

Competency Based Education Training is a model that tackles unemployment as graduates from this system are able to start self-employment projects because they have acquired the competencies to set up their own businesses or be absorbed by the industries. Therefore, unemployment which other programmes grapple with is not an issue for CBT graduates (Anane, 2013). There is no doubt that having gone through CBT, graduates do not simply provide service in the working environment; they accomplish results and this is what the world of work expects from its work force and which the CBT graduates have exhibited. Most graduates from this training background have either gotten formal employment or are self-employed because they have acquired the competencies needed to operate efficiently in their respective professions. These graduates have become the pillar of economic development in both first and third world countries. For example apprentices who underwent similar training are still on demand in African and European countries. These are usually recruited with incentives of attaining citizenship and lucrative on the job packages. This goes to batterers the point that Competency Based Training is indeed quality delivery for TVET Institutions (Zuva, 2020).

2.12. Factors Hindering Effective Implementation of Competency-Based Training Programme

Competency-based training as any other training is comprised of some challenges that affect the effective implementation of the programme in an institution. According to

Oyugi (2015) apart from training function being practiced and its importance towards institutional performance, yet it may not be effective due to some problems.

Lack of enough information: In an institution, it is necessary to have accurate and enough information concerning programmes. Sometimes human resource department and trainers from different departments do not have enough data banks on what kind of training is needed and to what trainees. It is also seen that trainers do not have enough knowledge basing on the training programme to be executed to trainees (Yohana, 2020).

Poor choice of trainers: Trainers are the ones who provide training to trainees. An institution needs to be able to choose appropriate trainers who can train employees effectively; through the human resource department, such a role has to be played. In some institutions they tend to choose a trainer, who is cheap to provide training, this may become a problem since sometimes that trainer may not have enough knowledge on the programmes been prepared. Human resource department should be able to measure competencies that trainers have before training is conducted (Yohana, 2020).

Inadequate funding: One of the major challenges confronting CBT implementation in TVET institutions is inadequate financial support to the CBT. Effective implementation of CBT concept of teaching and learning requires continuous flow of funds in support of the following key activities; Training for lecturers and staff running CBT programmes in the technical universities, refresher courses and industrial training for newly recruited staff and lecturers, acquisition and maintenance of hardware and software packages for teaching and learning, infrastructural development such as workshops and studios, procurement and installations of laboratory equipment and instrument for practical works and Curriculum development and the preparation of instructional materials. Inadequate funding has greatly affected these activities which are necessary in the CBT implementation processes (Iddrisu *et. al.* 2014).

Infrastructural challenges: The sustenance of CBT programs relies greatly on equipping the training institutions with the needed infrastructure and basic teaching tools. The measure of competencies of CBT trainees depends on the ability to demonstrate their knowledge and skills on the job defined by the core tasks and assignments. This requires continuous practice with tools, equipment and laboratory works. In many instances, the

TVET institution lacks the needed infrastructure including laboratories for academic works for both trainees and trainers to support trainees in their training goals. The acquisition and maintenance of hardware and software packages in the field of construction, automotive and manufacturing sectors coupled with increasing cost of equipment, tools and facilities in workshops have been the main infrastructural challenges in the CBT implementation (Charles, 2017).

Lack of institutional support: The institutions have to create conducive and friendly teaching and learning environment for effective CBT implementation. The institutions being too conscious of cost have jeopardized CBT implementation in one way or the other. Even the issue of CBT on the job training is not taken seriously by institutions (Tambwe, 2017).The initial training and follow-ups assistance provided for educators must be systematic in order to avoid the tendency for the trainers to teach (as in the subject based approach) and CBT trainers quickly slip back into the role of the traditional teacher. Lack of institutional support for the organization of workshops and training seminars on CBT for lectures and supporting staff have been one of the limitations of CBT (Sullivan, 1996).

Inadequate support and feedback: Like any other teaching innovation, the success of CBT implementation also depends on the quality of teachers. This is because CBT is built on the philosophy that almost all trainees can learn equally well if they receive high quality of trainers and sufficient time (Smith, 2010). However, given the intense concentration of the content in the CBT modules, trainers often do not have sufficient time to support the trainers properly during the training sessions, for example by offering the opportunity for re-submission of task, feedback and coaching (Boahin & Hofman, 2012).

2.13. Strategies Used to Overcome Challenges Facing Effective Implementation of CBT

Oyugi (2015) explained that, different kinds of literature have talked about different approaches that can be taken into consideration to overcome challenges facing CBT; however, as cited by Roberts (2000), identified three possible strategies that are used as follows.

Collaborative strategies: These strategies are mostly used when dealing with problems comprised of various stakeholders between powers is disseminated (Oyugi, 2015).

Competitive strategies: These strategies are used to look for influence, power and market shares. The outcome of these strategies is a win-lose situation. Nevertheless, these strategies enhance the creation of new ideas, innovation and provision of choices (Oyugi, 2015).

Authoritative strategies: These strategies are used since they provide these problems to other individuals or a group of individuals who can take and handle those problems and go through the entire process of problem-solving. Then later on the rest follow the decisions made (Oyugi, 2015).

2.14 Conceptual Framework

Conceptual framework is defined as a process whereby all elements of the research process are linked. Here a researcher tends to dispose of contents of the study been carried out. A conceptual framework is treated as a component of the research process. A model is prepared to make thoughts about different factors which provide the basis as to why a researcher chose to conduct that study matter (Ravitch & Riggan, 2012).

A conceptual framework is drawn to show the relationship between independent and dependent variables. Dependent variables are measured and affected result from independent variables. Independent variables are variables that are exploited and controlled by the researcher as an observed effect on ensuring a behavior (Biens, 2019). Therefore, these relationships are diagrammatically shown below.

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┌─────────────────────────────┐
│  Awareness and Participation │
│   • Employers                │────────────────┐
│   • Employees                │                │
└─────────────────────────────┘                │
                                                ▼
┌─────────────────────────────┐        ┌──────────────────┐
│  Competencies framework      │        │                  │
│   • Mission  &  Vision  of an│        │  Effective CBT   │
│     organization             │───────▶│  Programme       │
│   • Drafting core competencies│       │                  │
│   • Validating competencies  │        └──────────────────┘
│   • Communicating competencies│
│   • Implementing competencies │
└─────────────────────────────┘
┌─────────────────────────────┐
│  Steps of CBT                │
│   • Training needs           │
│   • Designing specific  CBT  │
│   • Training Methods         │────────────────┘
│   • Training materials or  equipment
│     assessment               │
│   • Implementation           │
│   • Evaluation               │
└─────────────────────────────┘
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Source: Researcher, 2022

The conceptual framework in the above diagram elaborates the relationship that exists between variables of research. In this study, effective competency-based training programmes shows dependency over several independent variables such as awareness and participation, the establishment of the required competencies and steps of CBT. It is assumed that awareness and participation of both employers and employees are necessary.

This because employees are the one who receive these training programmes while employers make sure that it is provided to them. Secondly, by establishing competencies properly, it will ensure that programmes are effectively implemented. It is necessary to consider necessary steps when deciding on competencies like understanding mission and vision of an organization, drafting, validating, communicating and implementing core competencies. Lastly, necessary steps have to be included for programmes to be effective especially by analyzing training needs, design specific CBT, training methods to be used, training and assessment, materials or equipment and implementation.

2.15. Summary of Literature Review

This chapter discussed the literature review of the research study, literature review provided the study with an explanation of the theoretical rationale of the problem being studied as well as what research has already been done and how the findings relate to the problem at hand. This literature was reviewed from journals, published books and internet.

The chapter explained the theoretical orientation and empirical review. In this chapter review of literature related the current status of competency based training in TVET institution were presented. The concepts of CBT, historical background of CBT, elements of CBT, characteristics of CBT, principles of CBT, teaching methods used for CBT, steps in creating CBT, methods of CBT and the benefits of CBT are included. The reviewed literature shows that the move from the traditional subject/content-based education to competency-based education is informed by the need to expand the competency and capabilities that are considered essential to success not only in academia but also in the modern knowledge-based economy. The literature review covered the challenges facing the implementation of competency based training, which include lack of enough information, poor choice of trainers, lack of enough budget, poor top management support, poor participation of trainees and poor evaluation and monitoring of training program. In this chapter the strategies that can be employed for effective implementation of competency-based training are also discussed.

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Research Design

In this study, descriptive survey research design was employed. The reason behind using this design is it helps to describe the situations of the issue under study with quantitative and qualitative data. Qualitative approach helps to elaborate, define, express and deeply indicate the understanding of stakeholders, trainers, trainees and officers towards competency based training. On the other hand, the quantitative approach has described the magnitude of the current status of competency based training in TVET institution.

3.2. Source of Data

For this study, data were collected from both primary and secondary data sources. The primary data sources were trainees, trainers, department heads and the dean of TVET College. Secondary data sources were policy/strategy documents and reports on TVET that reflect the current status of competency based training.

3.3. Population and Sampling Techniques

The total number of population in this study was 307; which includes 238 trainees, 63 trainers, 5 department heads and 1 dean. However, the sample population for this study was83 trainees, 32 trainers, 5 department heads and 1 dean.

In This study proportionate stratified and comprehensive sampling techniques were used. The College has five departments with 14 occupational areas of training. Among these, five occupational areas of training were selected by using proportionate stratified sampling technique. Among the total number of 63 trainers in TVET College, 32 trainers were taken as sample by using proportionate stratified sampling technique. Eighty three trainees were selected by proportionate stratified sampling technique from 238 trainees in each field of training. Five department heads and the dean were selected by using comprehensive sampling technique.

Table 1: Sample sizes

No	Filed of training	Total trainees	Sample trainees	Total trainers	Sample trainers	Sample department heads	Dean
1	Electrical electronics	59	21	17	8	1	
2	Surveying	56	18	13	6	1	
3	Database management	38	13	16	7	1	
4	Road	46	17	11	6	1	
5	GAMF	39	14	6	5	1	
	Total	238	83	63	32	5	1

3.4. Data Collection Instruments

To obtain reliable and adequate data questionnaires, interviews, observation checklists and various documents like policy/strategy documents and reports on TVET were referred.

3.4.1. Questionnaires

To collect data from the respondent's questionnaires were developed based on the basic research questions under study. Closed ended and open-ended questionnaire were prepared for both trainers and trainees. The questionnaires were prepared in English and Amharic Languages for trainers and trainees respectively. The close-ended questionnaires were arranged in the form of five point likert rating scale (1= strongly disagree, 2=disagree, 3=undecided, 4=agree and 5= strongly agree). A total of 47 close ended and 2 open ended items were employed for both the trainees and trainers. Moreover; the open-ended questions were used in order to give for the respondents more freedom and flexibility in providing their own opinions and suggestion in written forms.

3.4.2. Interview

In addition to the questionnaires, semi-structured interviews consisting of 6 items were prepared by the researcher to obtain factual and firsthand information through face to face and open oral discussions from department heads and the dean. The interviews were employed to obtain relevant data which was not handled by the questionnaire. Responses were captured through written notes and recorded by using mobile phone.

3.4.3. Observation Checklists

It was important to observe the classroom teaching learning process, the practical training and the availability of training material to find out the problems that face for the trainees and trainers to implement CBT. The observation was conducted in five field of training (data base management, electrical electronics, surveying, road construction and general assembly metal fabrication) for three days. The observation check lists were used by the researcher because of its prominent advantage of depicting things or situations at their natural settings.

3.4.4. Document Analysis

In order to cross check thedataobtained from the primary source, secondary data sources were used. Regarding the secondary sources policy strategies/document and reports on TVET were referred.

3.5. Procedure for the study

The instruments were prepared in Amharic and English language for trainees and trainers respectively.Explanation on the purpose of the questionnaires was given to the respondents. After getting their willingness and good empathy to participate, the questionnaires were distributed to the respondents. The interviews were conducted with the department heads and the dean after making proper arrangement and schedule. Finally, the questionnaires were returned and appropriatelyanalyzed.

3.6. Methods of Data Analysis

The quantitative data has beenprocessed in to SPSS(version-20) software.The data obtained from trainers and trainees through questionnaires were analyzed in descriptive statistics namely percentage, frequency, mean and weight mean. The data obtained through interviews, observation checklists, open ended questions and document reviews were analyzed qualitatively through descriptive narration for the purpose of triangulation.

3.7. Validity and reliability

The validity and reliability of this research was checked by pilot study. Therefore, before conducting the main study, the draft questionnaires were first administered to 10 trainees

and 5 trainers in the pilot study. It was done to achieve the relevance of the questionnaires and to improve the questions based on the feedback. The reliability statistics test was performed using Cronbachi's alpha analysis which is appropriate when the questions deal on Likert rating scale. Based on the pilot test, the reliability coefficient of the instrument was found to be 0.81 to 0.89 for all items. To interpret the output the rule of George & Mallery (2003) was followed: >0.9 (Excellent), >0.8 (Good), >0.7(Applicable), >0.6(Poor) and <0.5(unacceptable). Generally, the pilot test result did not show any defect on the developed questionnaires.

3.8. Ethical consideration

The questionnaires were distributed and an interview also conducted after checking the willingness of participants. The respondents were told that their response would not use for any purpose other than for this thesis. Whereby respondents avoid the use of names when responding to the questionnaires, instead they just had to specify their field of training and position.

CHAPTER FOUR

4. RESULTS, ANALYSIS AND DISCUSSIONS OF DATA

This chapter of the study consists of three parts. Characteristics of the respondents, analysis of the main data and discussions of results collected through questionnaires, interview, observations and document analysis. Both primary and secondary sources were utilized to analyze the basic research questions raised in chapter one. As stated in chapter three of the study, the same questionnaires were distributed to 83 trainees and 32 trainers. From the total questionnaires which were distributed to the trainees that counts 83 (100%) and trainers 32(100%), all have been returned and analyzed. The data obtained through questionnaireswere analyzed quantitatively; and interviews, observation and document analysis were analyzed qualitatively. The analyzed data were compiled and organized in a way that suits interpretation of the results in addressing the research questions.

4.1. Characteristics of the Respondents

Understandings about the overview of the respondent characteristics are important for the analysis of their responses. Hence, attempts were made to describe the background of the respondents which directly related to the objectives of the study. Accordingly, background information of the respondents; which includes: sex, age, field of training and work experiences of the respondents were presented and analyzed.

Table 2: General characteristics of respondents

	Items	Respondents			
		Trainees=83		Trainers=32	
		F	%	F	%
Sex	Male	45	54.2	19	59.4
	Female	38	45.8	13	40.6
	Total	83	100.0	32	100.0
Age	<18	-	-	-	-
	19-21	35	42.2	-	-
	22-25	41	49.4	3	9.4
	26-30	7	8.4	19	59.4
	31-35	-	-	10	31.3
	above 35	-	-	-	-
	Total	83	100.0	32	100.0
Educational qualification	Diploma	-	-	8	25.0
	Degree	-	-	24	75.0
	MA/MSC	-	-	-	-
	Total	-	-	32	100.0
Level	Level I	7	8.4	-	-
	Level II	8	9.6	-	-
	Level III	20	24.1	-	-
	Level IV	48	57.8	-	-
	Total	83	100	-	-
Work experience	<5	-	-	-	-
	5 to 10	-	-	24	75.0
	11 to 15	-	-	5	15.6
	16 to 20	-	-	3	9.4
	above 20	-	-	-	-
	Total	-	-	32	100.0
Field of training	Data base management	13	15.7	7	21.9
	Electrical Electronics	21	25.3	8	25.0
	GAMF	14	16.9	5	15.8
	Serving	18	21.7	6	18.9
	Road Construction	17	20.5	6	18.9
	Total	83	100.0	32	100.0

Note: F= frequency

Table 1 shows that among the total number of trainee respondents45 (54.2%) are males while 38 (45.8%) are females.In terms of age 41 (49.4 %), 35 (42.2%) and 7 (8.4%) trainees range from 22-25,19-21 and 26-30 years old respectively. This indicates that

majority of the trainees were adults and mature enough to attend the technical and vocational educational training program and implement competency based training. Regarding level of training 7 (8.4%)trainees werelevelI, 8 (9.6%) level II, 20 (24.1%) level III and 48 (57.8%) level IV. This implies that the respondents were mature enough to provide clear response fordata collection instruments. About their field of training; out of the total trainee respondents 13 (15.7%), 21 (25.3%), 14 (16.9%), 18 (21.7%) and 17 (20.5 %) were specialized on database management, electrical electronics, GMFA, surveying and road construction respectively. This indicates that five departments with different field of training are being offered by Woreta TVET College.

Among the total number of respondents 19 (59.4%) trainersare males; while 13 (40.6 %) are females. This implies that male and female trainer's participationare proportional in Woreta TVET College. In relation to their age; 3 (9.4%), 19 (59.4%) and 10 (31.3%) trainers range from 22-25, 26-30 and 31-35 yearsold respectively. This shows that the majority of trainers were adult. Concerning their educational qualification; the vast majority of trainers 24 (75.0%) were degree holder; while the remaining 8 (25.0%) trainers were diploma holder. This data indicates that still there are under qualified trainers who are teaching in the TVET College. As noted by Ayalew (2002), in the absence of well qualified teachers it is impossible to acquire quality education. About their specific field of study; 7 (21.9%), 8 (25.0%), 5 (15.8%), 6 (18.9%) and 6 (18.9%) trainers were database management, electrical electronics, GMFA, surveying and road construction respectively. Concerning the respondent's experience; 24 (75.0%), 5 (15.6%) and 3 (9.4%) trainers were ranges from 5-10, 11-15 and 16- 20 years of service respectively. This data also indicate that the majority of TVET trainers lack maturity and work experience as a trainer in the TVET College.

Table 3: Trainees and Trainers understanding, willingness and readiness about CBT

No	Items	Respondents		Scale with value					Statistics	
				5	4	3	2	1	Mean	Average mean
1	I know the principle of CBT	Trainees	F	30	22	19	12	-		
			%	36.1	26.5	22.9	14.5	-	3.84	
		Trainers	F	20	11	1	-	-		
			%	62.5	34.4	3.1	-	-	4.59	4.21
2	I know the objectives of the CBT	Trainees	F	20	45	5	11	2		
			%	24.1	54.2	6.0	13.3	2.4	3.84	
		Trainers	F	18	13	1	-	-		
			%	56.3	40.6	3.1	-	-	4.5	4.17
3	I have enough orientation about CBT	Trainees	F	26	44	8	1	4		
			%	31.3	53.0	9.6	1.2	4.8	4.04	
		Trainers	F	17	8	2	5	-		
			%	53.1	25.0	6.3	15.6	-	4.15	4.09
4	I have Enough Orientation about CBT delivery system	Trainees	F	20	45	5	11	2		
			%	24.1	54.2	6.0	13.3	2.4	3.84	
		Trainers	F	6	18	3	5	-		
			%	18.8	56.3	9.4	15.6	-	3.78	3.81
5	I am ready to acquire the necessary competency	Trainees	F	57	17	5	3	1		
			%	68.7	20.5	6.0	3.6	1.2	4.51	
		Trainers	F	3	26	2	1	-		
			%	9.4	81.3	6.3	3.1	-	3.96	4.23
6	I know how to engage students in CBT	Trainees	F	31	26	17	9	-		
			%	37.3	31.3	20.5	10.8	-	3.71	
		Trainers	F	9	18	2	3	-		
			%	28.1	56.3	6.3	9.4	-	4.03	3.87
7	I am satisfied with the CBT programs which been prepared by the institution	Trainees	F	14	28	24	9	8		
			%	16.9	33.7	28.9	10.8	9.6	3.37	
		Trainers	F	5	13	11	3	-		
			%	15.6	40.6	34.4	9.4	-	3.62	3.49
8	The college have CBT policy	Trainees	F	27	15	10	13	18		
			%	32.5	18.1	12.0	15.7	21.7	3.24	
		Trainers	F	6	18	8	-	-		
			%	18.8	56.3	25.0	-	-	3.93	3.58

Note: F= frequency, 1= strongly disagree, 2=disagree, 3=undecided, 4=agree and 5= strongly agree.

In Table 3 item No 1, the respondents were requested to rate their understanding on the principle of the competency based training program. 30(36.1%), 22 (26.5%) and 12 (14.5.9%) 4 (4.8%) trainees were strongly agree, agree, disagree and strongly disagree respectively on understanding the principle of the competency based training. Similarly, 20 (62.5%) and 11 (34.4%) trainers were strongly agree and agree respectively about the idea under discussion. This data revealed that the majority of respondents 30 (36.1%) trainees and 20 (62.5%) trainers agreed on understand the principle of competency based training program. In contrary, 19 (22.9%) trainees and 1 (3.1%) trainers couldn't able to decide on the above issue. The average means value 4.21 was also greater than the expected mean (3.00). This result indicates that in Woreta TVET college trainees and trainers know the principle of competency based training program.

As it is indicated in Table3 item No2, from the total number of respondents 20 (24.1%), 45 (54.2%), 11 (13.3%) and 2 (2.4%) trainees strongly agree, agree, disagree and strongly disagree respectively on the understanding of CBT objectives. Moreover, 18 (56.3%) and 13 (40.6%) trainers were strongly agree and agree respectively on the issue. This implies that most of 45 (54.2%) trainees and 18 (56.3%) trainers agreed about understanding the objective of CBT. The rest of respondents5 (6.0%) trainees and 1 (3.1%) trainer couldn't able to decide. The average means value 4.17 was also greater than the expected mean (3.00).This result reveals that in Woreta TVET college trainees and trainers know the objectives of competency based training program. This research finding has concurrence with the view of Fullan (2004), stated that persons who implement the curriculum, need to understand the characteristics of the package and know the purpose of the innovation clearly.

Respondents were asked to rate the extent to which the overall orientation is given about competency based training (Table 2 item No 3). Accordingly, 26 (31.3%), 44 (53.0%), 1 (1.2%) and 4 (4.8%) trainees were strongly agree, agree, disagree and strongly disagree respectively on the overall orientation about competency based training. Similarly, 17 (53.1%), 8 (25.0%) and 5 (15.6%) trainers were strongly agree, agree and disagree respectively about the idea under discussion. This shows that most of respondents 44 (53.0%) trainees and 17 (53.1%) trainers agree on enough orientation have given about the competency based training. However, 8 (9.6%) trainees and 2 (6.3%) trainer were undecided. The descriptive statistics of (average mean) trainees and trainers response is

4.09 which is above the expected mean. This result reveals that adequate orientations were given about competency based training.

As it is illustrated in Table 2 item No 4,from the total number of respondents 20 (24.1%), 45 (54.2%), 11 (13.3%) and 2 (2.4%) trainees were strongly agree, agree, disagree and strongly disagree respectively on the adequate of orientation are given about competency based training delivery system. In relation to this, 6 (18.8%), 18 (56.3%) and 5 (15.6%) trainers respondents also strongly agree, agree and disagree respectively. This asserts thatmost of 45 (54.2%) trainees and 18 (56.3%) trainers agree on adequate of orientation are given about competency based training delivery system. But, 5 (6.0%) trainees and 3 (9.4%) trainer couldn't able to decide. The descriptive statistics of (average mean) trainees and trainers response is 3.81 which is above the expected mean (3.00). This reveals that the adequate orientations were given about competency based training delivery system.

In Table 3item No 5, the respondents have requested to rate their readiness to acquire the necessary competency based training. As the data revealed, 57 (68.1%), 17 (20.5%), 3 (3.6%) and 1 (1.2%) trainees were strongly agree, agree, disagree and strongly disagree respectively on their readiness to acquire the necessary competency based training. In the same manner, 3 (9.4%), 26 (81.3%) and 1 (3.1%) trainers were strongly agree, agreed, disagree and strongly disagree respectively on the above issue. However, 5 (6.0%) trainees and 2 (6.3%) trainer couldn't able to decide. Based on this data majority of 57 (68.1%) trainees and 26 (81.3%) trainers were agree on their readiness to acquire the necessary competency based training. In addition the mean value (4.23) was also above the expected mean (3.00). This result revealed that most of the respondents were ready to acquire necessary competency to complete the objectives of the competency based training program.

Concerning Table 2 item No 6, the respondents have requested to rate how to trainees engage in competency based training program. From the total number of respondents 31 (37.3%), 26 (31.3%) and 9 (10.8%) trainees were strongly agree, agree and disagree respectively about how to trainees engage in competency based training program. Likewise, 9 (28.1%), 18 (56.3%) and 3 (9.4%) trainers were strongly agree, agree and disagree respectively about the above idea. In contrary, 17 (20.5%) trainees and 2 (6.3%) trainer were undecided. The mean value (3.87) was also greater than the expected mean

(3.00).This implies that most of 31 (37.3%) trainees and 18 (56.3%) trainers were engaging in competency based training program. Based on this data it is possible to conclude trainers know how to trainees engage in competency based training program.

As it is indicated in Table 3 item N<u>o</u> 7, the respondents have requested to rate satisfy on the competency based training prepared by the college. Accordingly, 14 (16.9%), 28 (33.7%), 9 (10.8%) and 8 (9.6%) trainees were strongly agree, agree, disagree and strongly disagree respectively about competency based training being prepared by the college. Similarly, 5 (15.6%), 13 (40.6%) and 3 (9.4%) of trainers were strongly agree, agree and disagree respectively on the above idea; but, 24 (28.9%) trainees and 11 (34.4%) trainers couldn't able to decide. This shows that the majority of respondents 28 (33.7%) trainees and 13 (40.6%) trainers were agree on to satisfy competency based training being prepared by the college. This lead to conclude that most of the respondents were satisfied on the competency based training being prepared by the college, as statistical mean value (3.49) was greater than the expected mean (3.00).

Relating to the availability of the competency based training policy; among the total number of respondents 27 (32.5%), 15 (18.1%), 13 (15.7%) and 18 (21.7%) trainees were strongly agree, agree, disagree and strongly disagree respectively. In relation to the above idea, 6 (18.8%) trainees and 18 (56.3%) trainers were strongly agreed and agree respectively. The rest of respondents10 (12.0%) trainees and 8 (25.0%) trainers couldn't decide. The descriptive statistics of (average mean) trainees and trainers response is 3.58 i.e. above the expected mean (3.00). This asserts that in Woreta TVET College competency based training policies are available (Table 2 item N<u>o</u> 8).

Table 4: The training process integrating theory with practice

No	Items	Respondents		Scale with value					Statistics	
				5	**4**	**3**	**2**	**1**	**mean**	**Average mean**
1	CBT is conducted based on the content of training prescribed in the course outline	Trainees	F	36	26	16	5	-	4.12	4.19
			%	43.4	31.3	19.3	6	-		
		Trainers	F	9	20	2	1	-	4.15	
			%	28.1	62.5	6.3	3.1	-		
2	Trainers demonstrate the practice before allowing trainees to do something	Trainees	F	45	27	2	4	5	4.24	4.06
			%	54.2	32.5	2.4	4.8	6		
		Trainers	F	15	10	5	2	-	4.18	
			%	46.9	31.3	15.6	6.3	-		
3	CBT is implemented based on each competency (knowledge, skill and attitude)	Trainees	F	29	34	10	7	3	3.95	3.99
			%	34.9	41	12	8.4	3.6		
		Trainers	F	8	16	7	1	-	3.96	
			%	25	50	21.9	3.1	-		
4	Adequacy of Trainers' knowledge of their subject	Trainees	F	32	31	11	9	-	4.03	3.95
			%	38.6	37.3	13.3	10.8	-		
		Trainers	F	9	14	4	5	-	3.84	
			%	28.1	43.8	12.5	15.6	-		
5	Trainer's capability to provide CBT	Trainees	F	29	39	8	5	2	4.06	3.99
			%	34.9	47	9.6	6	2.4		
		Trainers	F	10	14	5	3	-	3.96	
			%	31.3	43.8	15.6	9.4	-		
6	Trainers are enthusiastic for the training they provide	Trainees	F	32	31	11	8	1	4.02	3.99
			%	38.6	37.3	13.3	9.6	1.2		
		Trainers	F	7	19	4	2	-	3.96	
			%	21.9	59.4	12.5	6.3	-		
7	Theory and practice are integrated	Trainees	F	36	26	16	5	-	3.48	3.56
			%	43.4	31.3	19.3	6.0	-		
		Trainers	F	9	20	2	1	-	3.65	
			%	28.1	62.5	6.3	3.1	-		
8	Trainees practice what they learned theoretically	Trainees	F	44	21	9	7	2	4.18	4.12
			%	53	25.3	10.8	8.4	2.4		
		Trainers	F	7	22	1	2	-	4.06	
			%	21.9	68.8	3.1	6.3	-		
9	Trainers provide training by relating theory with practice	Trainees	F	34	29	10	7	3	4.01	4.05
			%	41	34.9	12	8.4	3.6		
		Trainers	F	4	27	1	-	-	4.09	
			%	12.5	84.4	3.1	-	-		
10	Training offered based on the reality of work place	Trainees	F	26	32	13	11	1	3.85	3.8
			%	31.3	38.6	15.7	13.3	1.2		
		Trainers	F	3	18	11	-	-	3.75	
			%	9.4	56.3	34.4	-	-		

Note: F= Frequency, 1= strongly disagree, 2=disagree, 3=undecided, 4=agree and 5= strongly agree.

As shown in Table 3 item N<u>o</u>1, respondents were asked to respond about the competency based training are conducted based on the content of training prescribed in the course outline. Accordingly, 36 (43.4%), 26 (31.3%) and 5 (6.0) of trainees were strongly agree, agree and disagree respectively on the above idea. In the same manner, 9 (28.1%), 20 (62.5%) and 1 (3.1%) trainers were strongly agree, agree and disagree respectively. This shows that majority of the respondents 36 (43.4%) trainees and 20 (62.5%) trainers were strongly agree and agree respectively about the competency based training are conducted based on the content of training prescribed in the course outline; however, 16 (19.3%) trainees and 2 (6.3%) trainers couldn't able to decide. This result indicates that competency-based training is conducted based on the contents of training prescribed in the course outline. The statistical data result also showed that competency-based training is conducted based on the contents of training prescribed in the course outline, as the average mean value (4.19) was greater than the expected mean value (3.00).

As it is indicated in Table 3 item N<u>o</u>2,from the total number of respondents 45 (54.2%), 27 (32.5%),4 (4.8%) and 5 (6.0%) trainees were strongly agree, agree, disagree and strongly disagree respectively about trainers provide training by demonstrate the practical's before allowing learners to do the something. Moreover, 15(46.9%), 10 (31.3%) and 2 (6.3%) trainers were strongly agree, agree and disagree respectively on the above idea under discussion. This data shows that the majority of respondents 45 (54.2%) trainees and 15(46.9%)trainers were strongly agreed on trainers provide training by demonstrate the practical's before allowing learners to do the something; while, 2 (2.4%)trainees and 5 (15.6%) trainers were undecided. The average mean value (4.06) was also greater than the expected mean value (3.00). This could lead to conclude that competency based training delivered by demonstration the practical's before allowing learners to do the something. This result also implies that there is a good chance of making competent skilled man power.

As it can be seen from Table 3 item N<u>o</u> 3,among the total number of respondents 29 (34.9%), 34(41%),7 (8.4 %) and 3 (3.6 %)trainees were strongly agree, agree, disagree and strongly disagree respectively about Competency based mode of training are delivered

by considering each competency (knowledge, skill and attitude).On the other hand, 8 (25.0%), 16 (50.0%) and 1 (3.1%) trainers were strongly agree, agree and disagree respectively about the idea under discussion. This shows that most of respondents 34 (41%) trainees and 16 (50.0%)trainers agreed on Competency based mode of training are delivered by considering each competency (knowledge, skill and attitude);whereas, 10(12.0%)trainees and 7 (21.9%) trainers couldn't able to decide. This result asserts that in Woreta TVET College competency based training are delivered by considering each competency (knowledge, skill and attitude). The average mean value (3.99) was also greater than the expected mean value (3.00).

With regarding to Table 3 item No 4, respondents were asked to respond about trainers have adequate knowledge on their subject. As the data revealed, 32 (38.6%), 31 (37.3%) and 9 (10.8) trainees were strongly agree, agree, disagree and strongly disagree respectively about trainers have adequate knowledge on their subject. Likewise, 9 (28.1%), 14 (43.8%) and 5 (15.6%) trainers were strongly agree, agree, and disagree respectively about the idea under discussion. This implies that as most of the respondents 32 (38.6%) trainees and 14 (43.8%) trainers were agreed respectively about trainers have adequate knowledge on their subject; in contrary, 11 (13.3%) trainees and 4 (12.5%) trainers couldn't able to decide. The average mean value (3.95) was also greater than the expected mean value (3.00). Based on this data it is possible to conclude that the trainers have adequate knowledge on their subject to implement competency based training by integrating the local reality. This research finding has contradict with view of Desalegn (2014) posited in his finding that proficiency of trainers was not appreciated in transmitting enough knowledge to trainees

In item No5 of Table 3, respondents were asked to respond about the trainers have capable enough in providing practical training (skills). In relation to this idea, 29 (34.9%), 39 (47.0%), 5 (6.0%) and 2 (2.4) of trainees were strongly agree, agree, disagree and strongly disagree respectively about the trainers have capable enough in providing practical training (skills). Similarly, 10 (31.3%), 14 (43.8%) and 3 (9.4%) of trainers were strongly agree, agree and disagree respectively on the above idea. Based on this data most of the respondents 39 (47.0%) trainees and 14 (43.8%) trainers are agreed respectively trainers have capable enough in providing practical training (skills). The rest of respondents 8 (9.6%) trainees and 5 (15.6%) trainers couldn't decide. This result revealed

that trainers have capable enough in providing practical training (skills). The statistical data result also showed that trainers have capable enough to providing practical training, as the average mean value (3.99) were greater than the expected mean value (3.00).

Respondents were asked to rate the extent to which the trainers are enthusiastic in providing practical training (Table 3 item No 6). Accordingly, 32 (38.6%), 31 (37.3%), 8 (9.6%) and 1 (1.2) trainees were strongly agree, agree, disagree and strongly disagree respectively on extent to which trainers are enthusiastic in providing practical training. Likewise, 7 (21.9%), 19 (59.4%), 4 (12.5%) and 2 (6.3 %) trainers were strongly agree, agree, and disagree respectively about the idea under discussion. This shows thatmost of the respondents 32 (38.6%) trainees and 19 (59.4%) trainers were agree regarding the extent to which trainers are enthusiastic in providing practical training; while, 11 (13.3%) trainees and 5 (15.6%) trainers couldn't decide. This result could lead to conclude that in Woreta TVET College trainers are enthusiastic in providing practical training. The average means value (3.99) also greater than the expected mean value (3.00).

As it illustrated in Table 3 of item No 7, respondents were asked to respond about relationship between theory and practice in competency based training program delivery system. As the data revealed, 36 (43.4%), 26 (31.3%) and 5 (6.0%) trainees were strongly agree, agree and disagree respectively about the relationship between theory and practice in competency based training. In the same manner, 9 (28.1%), 20 (62.5%) and 1 (3.1%) trainers were strongly agree, agree and disagree respectively about the above idea. This implies that most of the respondents 36 (43.4%) trainees and 20 (62.5%) trainers agreed on the relationship between theory and practice in competency based training program being highly integrated. In contrary, 16 (19.3%) trainees and 2 (6.3%) trainers couldn't decide. This result revealed that in Woreta TVET College the theory and practice are highly integrated on delivering competency based training. The statistical data result also showed that theory and practice are integrated, as the average mean value (3.56) is greater than the expected mean value (3.00).

Regarding Table 3 item No 8, respondents were asked to respond about the trainee's practices what they learned theoretically. Accordingly, 44 (53.0%), 21 (25.3%), 7 (8.4%) and 2 (2.4) of trainees were strongly agree, agree, disagree and strongly disagree respectively bout the trainees practices what they learned theoretically. Moreover, 7

(21.9%), 22 (68.8%) and 2 (6.3%) of trainers were strongly agree, agree, and disagree respectively on the above idea. This shows that the vast majority of respondents 44 (53.0%) trainees and 14 (43.8%) trainers agreed on trainee's practices what they learned theoretically. Whereas, 9 (10.8%) trainees and 1 (3.1%) trainers unable to decide. The average mean value (3.82) was also greater than the expected mean value (3.00). Based on this data it is possible to conclude that trainees practice what they learned theoretically to develop the expected competency as it shown in figure1.

Figure 1: Trainee's practice what they learned theoretically

As it is indicated in the same Table item No 9, from the total number of respondents 34 (41.0%), 29 (34.9%), 7 (8.4%) and 3 (3.6) of trainees were strongly agree, agree, disagree and strongly disagree respectively on trainers deliver training by integrated theory with practice. Similarly, 4 (12.5%) and 27 (84.4%) trainers were strongly agree and agree respectively about the idea under discussion. In relation to this data the majority of the respondents 34 (41.0%) trainees and 27 (84.4%) trainers agreed on trainers have given training by integrating theory and practice. The rest of respondents 10 (12.0%) trainees and 1 (3.1%) trainers were unable to decide. The average means value (4.05) is also greater than the expected mean value (3.00). This asserts that in Woreta TVETE College the trainers were deliver training by integrating theory with the practice. The above result concur with Sullivan (2015) underscores that CBT programs require supporting theory is integrated with practice skill and essential knowledge.

Concerning the practical skill training being offered based on the reality of work place (Table 3 item No 10). Out of the total respondents 26 (31.3%), 32 (38.6%), 11 (13.3%) and 1 (1.2%) trainees were strongly agree, agree, disagree and strongly disagree respectively about practical skill training offered based on the reality of work place. In the same manner, 3 (9.4%) and 18 (56.3%) of trainers agree respectively on the above idea. This shows that most of the respondent 32 (38.6%) trainees and 18 (56.3%) trainers agreed on the practical skill training offered based on the reality of work place; while, 13 (15.7%) trainees and 11 (34.4%) trainers couldn't decide. The statistical data result also showed that the average means value (3.80) is greater than the expected mean value (3.00). Based on this data it is possible to conclude that in Woreta TVET College there is an application of link the training plan to the world of work.

Table 5: Competency based mode of training in the College

No	Items	Respondents	Scale with value					Statistics	
			5	4	3	2	1	mean	Average mean
1	Lecture method of training	Trainees	F 27	40	11	5	-	4.07	4.16
			% 32.5	48.2	13.3	6	-		
		Trainers	F 12	17	2	1	-	4.25	
			% 37.5	53.1	6.3	3.1	-		
2	Problem solving method of training	Trainees	F 32	28	9	12	2	3.91	3.78
			% 38.6	33.7	10.8	14.5	2.4		
		Trainers	F 7	17	-	6	2	3.65	
			% 21.9	53.1	-	18.8	6.3		
3	Discovery method that support learners creativity	Trainees	F 16	34	17	7	9	3.49	3.71
			% 19.3	41	20.5	8.4	10.8		
		Trainers	F 9	16	5	-	2	3.93	
			% 28.1	50	15.6	-	6.3		
4	Inquiry method of training	Trainees	F 16	33	18	12	4	3.54	3.70
			% 19.3	39.8	21.7	14.5	4.8		
		Trainers	F 6	19	4	3	-	3.87	
			% 18.8	59.4	12.5	9.4	-		
5	Project method of training	Trainees	F 20	46	-	13	4	3.78	4.03
			% 24.1	55.4	-	15.7	4.8		
		Trainers	F 16	12	1	3	-	4.28	
			% 50	37.5	3.1	9.4	-		
6	Discussion method of training	Trainees	F 22	32	18	2	9	3.67	3.67
			% 26.5	38.6	21.7	2.4	10.8		
		Trainers	F 9	12	3	8	-	3.68	
			% 28.1	37.5	9.4	25	-		
7	Self-paced learning	Trainees	F 22	33	14	12	2	3.73	3.67
			% 26.5	39.8	16.9	14.5	2.4		
		Trainers	F 6	13	8	5	-	3.62	
			% 18.8	40.6	25	15.6	-		
8	Simulation method	Trainees	F 24	34	9	4	12	3.65	3.82
			% 28.9	41	10.8	4.8	14.5		
		Trainers	F 11	14	3	4	-	4.00	
			% 34.4	43.8	9.4	12.5	-		
9	Action demonstration method	Trainees	F 32	38	4	7	2	4.09	3.96
			% 38.6	45.8	4.8	8.4	2.4		
		Trainers	F 5	21	2	4	5	3.84	
			% 15.6	65.6	6.3	12.5	15.6		
10	Computer based learning	Trainees	F 21	19	14	12	17	3.18	3.23
			% 25.3	22.9	16.9	14.5	20.5		
		Trainers	F 2	16	6	5	3	3.28	
			% 6.3	50	18.8	15.6	9.4		

Note: F= Frequency, 1= strongly disagree, 2=disagree, 3=undecided, 4=agree and

5= strongly agree.

Based on the above Table item No 1, respondents response towards the methods used in the training processes to implement CBT was 27 trainees respondents are strongly agree, 40 are agree, 5 are disagree and the rest 40 are strongly disagree which was in percent 32.5%, 48.2% and 6.0% respectively. Similarly, 12 (37.5%), 17 (53.1%) and 1 (3.1%) of trainers were give the same response for the above idea. Most of the respondents 40 (48.2%) trainees and 12 (37.5%) trainers agreed that long lecture is always used as their instructional method. However, 11 (13.3%) trainees and 2 trainers couldn't decide. The average means (4.16) also greater than the expected mean (3.00).This result indicates that in Woreta TVET College trainers use long lecture in their training processes.

In item No 2 of the same Table, 32 (38.6%), 28 (33.7%), 12 (14.5%) and 2 (2.4%) of trainees were strongly agree, agree, disagree and strongly disagree respectively regarding trainers used problem solving method of training in the College. Likewise, 7 (21.9%) trainers were strongly agree, 17 (53.1%) agree, 6 (18.8%) disagree and 2 (6.3%) strongly disagree on the above idea. But, 9 (10.8%) trainees were undecided. The great number of respondents 32 (38.6%) trainees and 17 (53.1%) trainers agreed on trainers used problem solving method of training. The average means value 3.78 which is greater than the expected mean (3.00). Based on this data it is possible to conclude that in Woreta TVET College the trainers use problem solving method of training to implement CBT. Therefore, trainees develop critical thinking skills and the ability to adapt to new learning situations.

With regard to item No 2 of Table 4, the respondents were asked to express their level of agreement on trainers used discovery method of training. Accordingly, 34 (41.0%) trainees and 16 (50.0%) trainers agreed on trainers used discovery method of training; but 7 (8.4%) trainees and 5 (15.6%) trainers disagreed on this issue. The average means value 3.71 which is greater than the expected mean (3.00). Thus, based on the result, it is possible to say that trainers use discovery method of training to implement CBT. This result is harmony with the argument of Carenol (2013), noted that the training methods are key to achieved the required competency hence educational and training method in CBT more Lerner centered than teacher centered the methods encourages learners actively participate in the learning situations through group, pair and whole class interaction.

As it can be seen clearly from Table 4 item No 4, the great number of respondents 33 (39.8%) trainees and 19 (59.4%) trainers agreed on inquiry methods are being given in the TVET College; while, 12 (14.5%) trainees and 3 (9.4%) trainers were disagreed on this issue. But, 18 (21.7%) trainees 4 (12.5%) trainers were neutral on the issue discussed above. The average means value 3.70 also greater than the expected mean (3.00). This result shows that in Woreta TVET College inquire mode of training were delivered to implement CBT.

From Table 4 item No 5, it can be observed that the majority of respondents 46 (55.4%) trainees and 16 (50.0%) trainers agreed on teachers using project method in CBT training. However, only 1 (3.1%) trainers couldn't able to decide. The average means value 4.03 which is greater than the ideal mean (3.00). Generally depicts that in Woreta TVET college trainer use project method in the training process to enable trainees acquire the intended knowledge, skill and attitude.

Based on the above Table 4 item No 6 indicate that there are 83 trainees and 32 trainers respondents who involved to respond the mentioned measurable issues, from those respondents 32 trainees and 12 trainers agreed on trainers use group discussion method of training which are in percent (38.6%) and (37.5%) respectively. The average means value 3.67 was also greater than the expected mean (3.00). Based on this data it is possible to conclude that trainers use group discussion method of training to share knowledge and ideas; and also there is the possibility of straying from the topic under discussion and dominating trainees might influence the group to accept their view.

Concerning self-paced method of training (see item No 7 of Table 4). From the total number of respondents 22 (26.5%), 33 (39.8%), 12 (14.5%) and 2 (2.4%) trainees were strongly agree, agree, disagree and strongly disagree respectively on the above idea under discussion. Similarly, 6 (18.8%), 13 (40.6%) and 5 (25.0%) of the trainers are strongly agree, agree and disagree respectively. Whereas, 14 (16.9%) trainees and 8 (25.0%) trainers undecided on the issue. The average means value 3.67 was greater than the expected mean (3.00). This means that trainers use self-paced learning method of training to enable trainees acquire critical thinking skills, problem solving skills, creativity and innovative skills in CBT implementation program. This finding aligns with the argument

Olabiyi *et al*. (2008) explain that training occurs best through participation and hence, using training facilities helped trainees to actively participate in learning.

As it is indicated in Table 4 item No 8, deals on how trainers using simulation (theory with practice) method of training. As the data revealed, 24 (28.9%) and 34 (41.0%) trainees; and 11 (34.4%), 14(43.8%) trainers agreed on trainers using simulation (theory with practice) method of training. Whereas, 4 (4.8%), 12 (14.5%) trainees and 4 (12.5%) trainers were disagree and strongly disagree respectively on the issue. Most of the respondents 34 (41.0%) trainees and 14(43.8%) trainers agreed on the above issue under discussion. In contrary, 9 (10.8%) trainees and 3 (9.4%) trainers couldn't able to decide. The average means value 3.82 also indicates that it is greater than the expected mean (3.00).This asserts that in Woreta TVET College the training are delivered by simulation the theory with practice as CBT is required.

In the same Table item No 9 question entitled good action demonstration method of training are given to trainees. Accordingly, greater number of respondents 38 (45.8%) trainees and 21 (65.6%) trainers agreed on good action demonstration method of training are being given to trainees. However, 4 (4.8%) trainees and 2 (6.3%) trainers were undecided. The average means value 3.96 was also greater than the expected mean (3.00). This result implies that the respondents ratings were agreed on action demonstration method of training are delivered in the Woreta TVET College. This is in harmony with the basic principles of CBET that training is based on what the learner can demonstrate than what they know (ILO, 2012).

As it is illustrated in Table 4 item No 10, among the total number of respondents 21 (25.3%), 19 (22.9%), 12 (14.5%) and 17 (20.5%) trainees were strongly agree, agree, disagree and strongly disagree respectively on CBT were provided by using computer based training. Likewise, 2 (6.3%), 16 (50.0%), 5(15.6%) and 3 (9.4%) trainers were strongly agree, agree, disagree and strongly disagree respectively on the above issue. This shows that the greater number of respondents 21 (25.3%) trainees and 16 (50.0%) trainers agreed on CBT were provided by using computer based training; while, 14 (16.9%), trainees and 6 (18.8%) trainers were neutral. In relation to this the average means value 3.23 was greater than the expected mean (3.00).This result could lead to conclude that in

Woreta TVET College CBT were delivered by using modern technology (computer, machines and piece of equipment) as a training method.

In general, on the above Table (4) respondent's result indicates that competency based training mode of delivery methods are adequately applicable. The interview made with department heads and observation checklist also indicates that trainers used lecture, demonstration and discussion in almost all their training processes. However, methods like simulation, project, discovery, self-learning, inquiry and problem solving of training were used rarely. In line with the above findings Kitainge (2017) stated that the implementation of CBT in TVET institutions depended on the quality of the trainer's ability to effectively manipulate, operate, and use equipment, tools and materials to help trainees understand the contents of the curriculum.

The result obtained from open ended question also shows "in our College to provide CBT we use different type of training methods like inquire, simulation, demonstration; in addition to discussion method most of us dominantly use lecture method of training as well as problem solving, project and discovery methods of training are rarely utilized". The above idea indicates that most trainer respondents use lecture methods dominantly; while lecture plus discussion, demonstration and questioning techniques are rarely utilized to implement CBT. Similarly Caroline (2013) noted that different training methods are key to achieve the required competency (knowledge, skill and attitude).

Table 6: Training materials and facilities

No	Items	Respondents		Scale with value					Statistics	
				5	4	3	2	1	Mean	Average mean
1	There are sufficient instructional materials	Trainees	F	12	21	11	8	31	2.69	2.82
			%	14.5	25.3	13.3	9.6	37.3		
		Trainers	F	-	13	4	14	1	2.96	
			%	-	40.6	12.5	43.8	3.1		
2	The availability of instructional materials are functional	Trainees	F	12	14	10	18	29	2.54	2.99
			%	14.5	16.9	12	21.7	34.9		
		Trainers	F	6	10	3	13	-	3.45	
			%	18.8	31.3	9.4	40.6	-		
3	There is the sufficient practical center to help trainees practice	Trainees	F	15	14	17	13	24	2.79	2.75
			%	18.1	16.9	20.5	15.7	28.9		
		Trainers	F	-	14	2	9	7	2.71	
			%	-	43.8	6.3	28.1	21.9		
4	There are sufficient text-book to refer the difficult they face	Trainees	F	7	10	21	14	31	2.37	2.49
			%	8.4	12	25.3	16.9	37.3		
		Trainers	F	-	7	5	9	11	2.62	
			%	-	21.9	15.6	28.1	34.4		
5	There are sufficient instructors guide to train practical skills	Trainees	F	8	19	22	11	23	2.87	2.68
			%	9.6	22.9	26.5	13.3	27.7		
		Trainers	F	-	10	2	14	6	2.5	
			%	-	31.3	6.3	43.8	18.8		
6	Adequate electricity supply	Trainees	F	10	13	5	18	37	2.28	2.64
			%	12	15.7	6	21.7	44.6		
		Trainers	F	-	13	3	15	1	3.00	
			%	-	40.6	9.4	46.9	3.1		
7	Adequate workshop spaces	Trainees	F	18	11	8	33	13	2.85	2.81
			%	21.7	13.3	9.6	39.8	15.7		
		Trainers	F	2	8	3	19	-	2.78	
			%	6.3	25	9.4	59.4	-		
8	Availability of machines and tools	Trainees	F	8	12	10	24	29	2.34	2.52
			%	9.6	14.5	12	28.9	34.9		
		Trainers	F	4	7	-	18	3	2.71	
			%	12.5	21.9	-	56.3	9.4		
9	Supply of training materials are on time, and up to date	Trainees	F	8	15	13	17	30	2.44	2.25
			%	9.6	18.1	15.7	20.5	36.1		
		Trainers	F	-	2	6	16	8	2.06	
			%	-	6.3	18.8	50	25		

Table 7: Training materials and facilities cont.…

				1	2	3	4	5		
10	Accessibility of computers, library and books	Trainees	F	4	7	16	18	38	2.04	
			%	4.8	8.4	19.3	21.7	45.8		2.03
		Trainers	F	-	2	5	17	8	2.03	
			%	-	6.3	15.6	53.1	25		
11	There are sufficient workshop rooms	Trainees	F	15	22	12	24	10	3.12	
			%	18.1	21.7	14.5	27.7	12		2.91
		Trainers	F	2	8	4	15	3	2.71	
			%	6.3	25	12.5	46.9	9.4		

Note: F= Frequency, 1= strongly disagree, 2=disagree, 3=undecided, 4=agree and 5= strongly agree

The availability and functionality of training materials are key components in TVET College than any other education since it is more practical by nature. Therefore, assessing the status of training facilities and materials can help to understand the standard of training provided by the institution to implement CBT. In considering this the Woreta TVET College trainees and trainers were requested to indicate the status of the training facilities and materials in their institution to conduct CBT.

To explore the availability of sufficient materials in item No 1 of the above Table, respondents were requested to answer the extent to which whether training materials are available or not to implement the CBT program in the institution. Accordingly, 12 (14.5%), 21 (25.3%), 8 (9.6%) and 31 (37.3%) trainees were strongly agree, agree, disagree and strongly disagree respectively on the availability of sufficient materials to conduct CBT. Likewise, 13 (40.6%) 14 (43.8%) and 1 (3.1%) trainers were agree, disagree and strongly disagree respectively about the idea under discussion. This revealed that most respondents 31 (37.3%) trainees and 14 (43.8%) trainers disagreed on the availability of sufficient materials to conduct CBT training. In contrary, 11 (13.3%) trainees and 4 (12.5%) trainers were undecided. The average mean value 2.82 was also less than the expected mean value (3.00). This result indicates that in Woreta TVETE College there are lack of training material to conduct competency based training. In addition the researcher

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has observed that there are insufficient training materials (tools and machines) to deliver CBT. This result contradict with (Hellwing, 2006) suggested that the degree of successful implementation of competence based training depends, on the one hand on the facilities and equipment of the institution, and on the other the learning materials that are provided.

In item No 2 of Table 5, the researcher intended to confirm whether the available instructional materials are functional or not. As the data revealed 12 (14.5%), 14 (16.9%), 18 (21.7%) and 29 (34.9%) trainees were strongly agree, agree, disagree and strongly disagree respectively on the available instructional materials are functional or not. In the same manner 6 (18.8%), 10 (31.3%) and 13 (40.6%) trainers were strongly agree, agree and disagree respectively on the issue. The finding shows that the greater number of respondents 29 (34.9%) trainees and 13 (40.6%) trainers disagreed on the available instructional materials are functional to conduct competency based training. The mean value of respondents for this item 2.99 which is less than the expected ideal mean (3.0). With regard to training materials (Majumdar, 2009) noted that inadequate supply of equipment, lack of workshops, and out dated equipment will make effective training impossible.To support the above result; the data obtained in observation compiled which shows that in Woreta TVET College the available instructional materials are not functional to implement competency based training as it shows in figure 2.
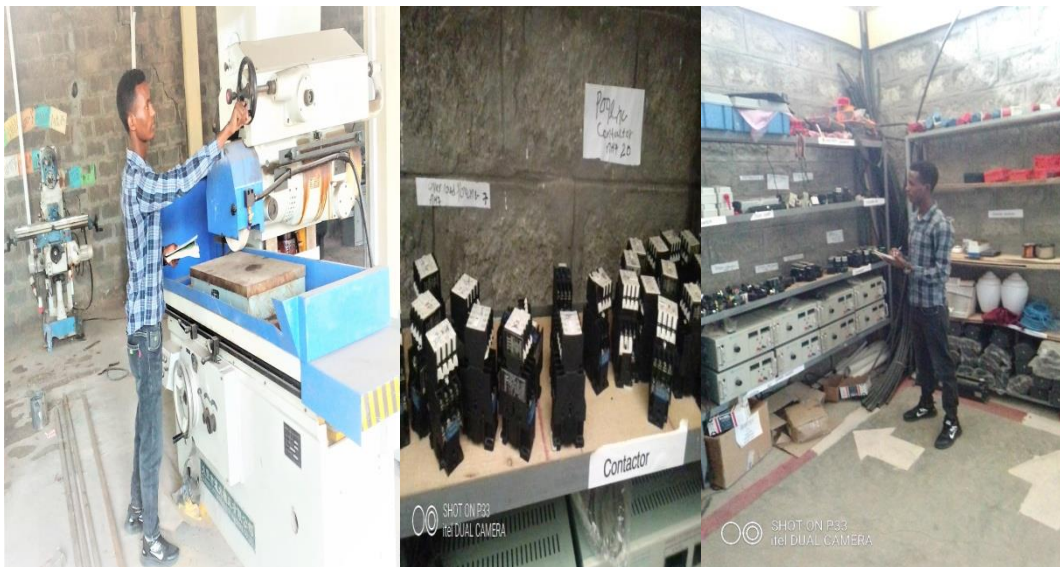
Figure 2: The availability of training materials

Regarding the availability of sufficient practical center to deliver CBT as the data indicated in Table 5 item No 3, among the total number of respondents 15 (18.1%), 14

(16.9%), 13 (15.7&) and 24 (28.9%) trainees were strongly agree, agree, disagree and strongly disagree respectively on the availability of sufficient practical center in College. Similarly, 14 (43.8%), 9 (28.1%) and 7 (21.9%) trainers were agree, disagree and strongly disagree respectively on the above idea. This shows that the majority of the respondents 24 (28.9%) trainees were disagreed on the availability of sufficient practical center; while, 17 (20.5%) trainees and 2 (6.3%) trainers couldn't able to decide. The mean value of 2.75 was also less than the ideal mean value (3.00). Generally depicts that in Woreta TVET College CBT is not implemented as well because of insufficient practical center. In line with this finding Mkpa (2001), stated that in all levels of educational system instructional facilities and learning materials were indispensable factors in the attainment of the CBT. The researcher has also seen there are inadequate practical center to help trainees practice what they learned theoretically as it shown in figure 3.

Figure 3: Workshop rooms

From Table 5 item No 4, it can be observed that the majority of respondents 31 (37.3 %) trainees and 11 (34.4%) trainers were disagree on the availability of sufficient text-book in the library to refer the difficult they face during training. However, 14 (16.9%) trainees and 9 (28.1%) trainers were undecided. The average mean value 2.49 was also less than the expected mean value (3.0). This asserts that in Woreta TVET College there is shortage of reference books; libraries were not organized as it could help trainees and trainers to carry out different learning tasks and to satisfy their interest to read. In addition to questionnaire results; the researcher observed that there is no adequate reference materials both in kind and number to implement CBT in Woreta TVET College. Considering the library accommodation capacity it is not to the standard. The library should be 1.7 m2 per trainee (Registration and accreditation of program in TVET Mar, 2010) but for all trainees of the College there is only one library without any relevant references.

With regard to item N<u>o</u> 5 of Table 5, the respondents were asked to express their level of agreement on the sufficient trainer's guide to train practical skills. Accordingly, 23 (27.7%) trainees and 14 (43.8%) trainers were disagreed on the sufficient of trainer's guide to train practical skills; but 19 (22.9%) trainees and 10 (31.3%) trainers agreed on this issue. The averages mean value 2.68 which also less than the expected mean value (3.0). Thus, based on the result, it is possible to conclude that in Woreta TVET College there is insufficient trainer's guide book to implement CBT.

Concerning Table 5 item N<u>o</u> 6, from the total number of respondents 10 (12.0%), 13 (15.7%), 18 (21.7%) and 37 (44.6%) trainees were strongly agree, agree, disagree and strongly disagree respectively on the availability of adequate electricity supply. Likewise, 13 (40.6%), 15 (31.3%) and 1 (3.1%) trainers were agree, disagree and strongly disagree respectively on the above idea. This shows that the greater number of the respondents 37 (44.6%) trainees and 15 (31.3%) trainers were disagreed on the availability of adequate electricity supply; while, 5 (6.0%) trainees and 3 (9.4%) trainers unable to decide on it. The average mean value (2.64) was also less than the expected mean value (3.0). Based on this result it is possible to conclude that in Woreta TVET College there is inadequate electricity supply to conduct competency based training.

In the same Table item N<u>o</u>7 question entitled that there is adequate workshop rooms to implement CBT. As the data revealed, greater number of respondents 33 (39.8%) trainees and 19 (59.4%) trainers disagree on the availability of adequate workshop rooms to implement CBT. In contrary, 4 (4.8%) trainees and 2 (6.3%) trainers were undecided. The average mean value (2.81) which is less than the expected mean value (3.0).This result indicates that in Woreta TVET College there is an inadequate workshop rooms with the implication of insufficient supply of facility for the TVET College to implement competency based training.

As it depicted in Table 5 item N<u>o</u> 8 regarding the availability of machines and tools to conduct competency based training. The majority of respondents 29 (34.9%) trainees and 18 (56.3%) trainers were disagreed on the above idea under discussion. While, 10 (12.0%) of trainees couldn't able to decide. The average mean value (2.52) was also less than the

expected mean value (3.00).This result could lead to conclude that in Woreta TVET College there is insufficient machine and tools to conduct competency based training.

In addition to the open ended question results; the researcher was also able to observe there are insufficient machine and tools to conduct competency based training in some departments, but few departments' have available training tools and equipment.

In table 5 item No9 the researcher intended to confirm whether sufficient supply of training materials and the available training materials are functional or not. Most of the respondents 30 (36.1%) trainees and 16 (50.0%) trainers disagreed that there is no sufficient supply of training materials and the available materials are out to date; however, 13 (15.7%) trainees and 6 (18.8%) trainers unable to decide on it. The average mean value (2.25) which is less than the expected mean value (3.00).This result asserts that in Woreta TVET College there are a shortage of adequate materials that affect the implementation of competency based training and the availability of training materials are not functional as it shown in figure 4.

Figure 4: Functionality of available materials

In order to triangulate the data obtained from questionnaires; interviews were made with department heads. They responded that "the TVET College faces a shortage of teaching and learning materials; this is due to the expensiveness of materials and the purchasing systems are delaying". The college dean also said that "in addition to lack of adequate fund; there is poor collaboration and emotional effort of all the stakeholders for the materials to be supplied on time".

In CBT system, appropriate training materials are essential to enable trainees achieving predetermined standard as per each unit of competence (knowledge, skill and attitude). As noted by Hellwing (2006), the degree of successful implementation of competence based training depends on the facilities and equipment of the institution and the learning materials that are provided.

As it is indicated in the same Table item No10, the respondents requested to rate their response on the availability of adequate computer access, library and reference books in the college. Accordingly, most of the respondents 38 (45.8) trainees and 17 (53.1%) trainers were disagree on the adequacy of the computer access, library and reference books in the college; while, 16 (19.3%) trainees and 5 (15.6%)trainers unable to decide on the issue. The average mean value (2.03) which is less than the expected mean value (3.00).This result indicates that in Woreta TVET College there are inadequate reference books, library and computers access to conduct competency based training.

Concerning the availability of sufficient training materials and workshop rooms (see item No11 of Table 5). The greater number of respondents 24 (27.7%) trainees and 15 (46.9%) trainers disagreed about the idea under discussion. Besides, the average mean value (2.91) which is less than the expected mean value (3.0). Based on this data it is possible to conclude that in Woreta TVET College there are insufficient training materials and workshop rooms to conduct CBT. In line with the above finding World Bank (2010) confirmed that inadequate supply of equipment, very poor basic equipment, lack of laboratory and materials will make effective teaching impossible.

In general, the above Table (5) respondent's result indicates that there is inadequate training equipment and the availability of materials which are not functional to deliver competency based training. As the interview was carried out with department heads;they agreed on the above problems. In addition, the interview was held with college dean; he ascertained that:
"The college is encountered with a shortage of workshop room and training machines. Training facilities, instructional materials, different machineries, accessories, computers, workshop, laboratories, etc. are not adequately available".

Based on the data obtained in observation the researcher also clearly identified that there are lack of the training facilities, training material and machineries to deliver CBT.The TVET College department heads and the dean pointed out that the main reason for the lack of the availability of these resources was budget constraint, lack of other source of income than trainee's tuition fees, poor management, lack of highly committed, experienced and dedicated TVET department heads and dean. One can infer from the above discussion that the availability of training facilities (electric service, training materials, and machineries/equipment, water supply, standard workshop, library service and classrooms) in Woreta TVET College were not sufficient for implementing competency based training.

In general this result indicates that currently the training offered by the college is carried out in poor condition. This reveal that the TVET college were not implementing their function as the direction that TVET strategy (2008) state in considering the quality indicators in defining physical and human resource assets (such as availability of classrooms, workshops etc.) as prerequisite to open the training program.

Table 8: Observation checklist for the availability of workshops to implement CBT

No	Items	Measurement		
		Yes	To some extent	No
1	Library services and facilities are available	-	-	x
2	Machines and Computers for the training are adequately available.	-	-	x
3	Reference books are adequately available	-	-	x
4	Sufficient lecture rooms are adequately available	-	x	-
5	Electricity service are adequately available	-	x	-
6	Water services are adequately available	-	-	x
7	The training center equipped with modern and adequate tools and equipment in relation to the current CBT implementation	-	-	x
8	Instructional materials for training are provided onthe time	-	-	x
9	Training materials that helps for practical learning are adequately available	-	-	x

As it can be seen from Table 6 item No 1, 2 and 3library services, reference books and the availability of machines and computers for the training are inadequate respectively. The researcher ensured that there were no resources adequately available. This result indicates that in Woreta TVET College the availability of Library services, reference books, and machines to implement CBT are inadequate.

To explore the availability of training facilities in Table 6 of items No 4 and 5, the researcher observed that lecture rooms and electricity supply are moderately available.

With regard to the adequacy of Water supply, training center equipped with modern tools, the instructional materials in providing CBT at the right time and the availability of Training materials in relation to the current CBT (see Table item No 6, 7, 8 and 9). The researcher observed that there is inadequate water supply, modern tools and some other equipment to implement competency based training.

In general, lack of adequate water supply, modern tool and instructional materials, lecture rooms, inadequate electric supply, available resources, library facilities and reference books are the major challenges in Woreta TVET College for the effective implementation of competency based training program. The data obtained through Interview with the college dean and department heads also revealed that there are similar challenging factors in delivering competency based training.

Table 9: Items related to trainers ability to arrange workshops as per CBT required

No	Items	Measurement		
		Yes	To some extent	No
1	The trainers implement outcome based training	x	-	-
2	The trainers assist their trainees willingly both during classroom & field training	x	-	-
3	The trainers provide training by relating theory with practice	x	-	-
4	Trainers Promote technology transfer in the college	-	x	-
5	Trainers encourage all trainees in individual and group work in CBT?	x	-	-
6	The instructor intervene in the trainees work appropriately to encourage the progress	x	-	-

From the above Table item No 1, 2 and 3 trainers implement outcome based training, assist trainees both in classroom and field training and provide training by relating theory with practice. The researcher perceived that most trainers are motivated for the practice and implementation of outcome based training program. As it depicted in Table 7 item No 4, Trainers does not promote technology transfer in the college as competency based training required.

As it is indicated in Table 7item No 5 and 6 trainers encourage all trainees in individual and group work to implement CBT and intervene in the trainees work appropriately to encourage the progress. The researcher perceived that trainers have the ability to practice and implementation as competency based training program required.

Table 10: Observation on the availability of facilities and services

No	Facilities	Measurement		
		Adequately Available	Moderately Available	Not Available
1	Availability of water supply to implement CBT	-	-	x
2	Availability electricity to implement CBT	-	X	
3	Availability of enough training rooms to implement CBT	-	-	x
4	Adequacy of the library for trainees	-	-	x
5	Availability of laboratories/workshops by considering CBT	-	-	x
6	Office for co –curricular activities to implement CBT	-	-	x
7	Availability of field training facilities to implement CBT	-	-	x

According to the data obtained in observation item No1ofTable 8, water supply is not availability to implement the program effectively. The researcher ensured that in Woreta TVET College the availability of water supply is inadequate as it shown in figure 5.

Figure 5: The availability of water supply

With regard to the availability of electricity supply; the researcher observed that in Woreta TVET College the availability of electricity supply is moderately availability to implement CBT program effectively (see Table 8 item 2).

From Table 8 item No 3, 4, 5, 6 and 7, in relation to the availabilities of enough training rooms, adequacy library, laboratories, offices for co-curricular activity and training facilities to implement CBT. The researcher observed that the facilities and services to deliver CBT are not available. This revealed that unavailability of CBT training materials and facilities are major factors for hindering the implementation of CBT.

In general, CBT would be successful when colleges are equipped with training materials and facility. Without the fulfillment of that resource, it would be hard for the CBT program to be effective. In line with this idea, the researcher tried to assess the availability of the training materials and facilities in the selected departments through observation checklists. The result showed that most of the selected departments in Woreta TVET College have inadequate facilities and training materials. In most departments there is problem in workshop rooms, library, laboratory, water supply, electricity supply and the like to implement CBT program.

4.2. Discussions

In this part, the researcher discussed under the following four major subjects in line with the four basic research questions.

4.2.1. Trainees and trainers understanding about competency-based training

Persons who implement the curriculum need to understand the characteristics of the package and know the purpose of the innovation clearly (Fullan, 2004). Therefore, it appears that trainers understating of CBT has an important role in the effective implementation CBT. In line with this idea, eight statements for the respondents were included in the questionnaires in order to explore respondents understanding of CBT. Hence, it looked that almost the majority of the respondents showed their agreement and strong agreement with the idea of CBT understandings raised in the questionnaires. As a result, trainees and trainers know the principle and the objectives of competency based training program; adequacy orientation were given about Competency Based Training delivery system; trainers are ready to acquire necessary competency to complete the objectives of the training program and know how trainees engage in competency based training program in Woreta TVET College. Similarly, Jeanne (2014) stated that the fundamentals for technical training require the trainer to have subject knowledge, pedagogic experience and practical skills.

4.2.2. The practice of competency based training

Albanese *et al*. (2008) stated that, when we want an individual to be competent, we need to consider three elements which are; what an individual is able to do, how he approaches his practice and how he acts as a professional. Since, in this study the respondents were participated in the practical training, they have expected to demonstrate the ability in the practice of a CBT and demonstrate an understanding of the competency based practices. Therefore, competency-based training is conducted based on the contents of training; the theory and practice are integrated on delivering competency based training; CBT was delivered by demonstration of what trainees have learned in practice and there is a good

chance of making competent skilled man power. The trainees also practiced what they learned theoretically to develop the expected competency (knowledge, skill and attitude). This result concurs with Albanese *et al* (2008)emphasized that competency can be evaluated through the demonstrable abilities of the student.

4.2.3. Competency based training method

Anane (2013) posited that CBT demands a different method to teaching and even assessment and certification. This is because conceptually, CBT is different from the traditional system. It is based on defined competency standards which are industry oriented. CBE is more trainee-centered, emphasizing the trainee's role in the learning process rather than focusing on what trainers provide for the learners. Thus, the trainer's role is to facilitate trainees learning using "facilitation methods such as discussion, small group work, problems solving and research".

Taking into account the above idea, ten statements for the respondents were included in the questionnaires in order to explore trainers have use different method of training in CBT. Hence, it looked that almost the majority of the respondents showed their agreement and strong agreement with the idea of CBT training methods raised in the questionnaires. As a result, trainers use lecture, discovery, project, discussion, self-paced learning, inquire and simulation method of training are delivered by using modern technology as a training method. This indicates that trainees develop critical thinking skills and the ability to adapt new learning situations; define new concepts and get factual information; acquire critical thinking skills, problem solving skills, creativity and innovative skills in CBT. Similarly, Kitainge (2017) indicated that the implementation of CBT in TVET institutions depended on the quality of the trainer's ability to effectively manipulate, operate, and use equipment, tools and materials to help trainees understand the contents of the training.

The interview made with department heads and observation checklist also indicates that trainers used lecture, demonstration and discussion in almost all their training processes. However, methods like simulation, project, discovery, self-learning, inquiry and problem solving of training were used rarely.

4.2.4. The Training Materials and Infrastructural Facilities

The sustenance of CBT programs relies greatly on equipping the training institutions with the needed infrastructure and basic teaching tools. One of the major challenges confronting CBT implementation in TVET College is inadequate financial support to the CBT. Effective implementation of CBT requires continuous flow of funds in support of the following key activities; acquisition and maintenance of hardware and software packages for teaching and learning, infrastructural development such as workshops and studios, procurement and installations of laboratory equipment and instrument for practical works and the preparation of instructional materials. Inadequate funding has greatly affected these activities which are necessary in the CBT implementation processes (Iddrisu *et. al.* 2014).

One can infer from the above idea that the availability of training facilities (electric service, training materials, and machineries/equipment, water service, standard workshop, library service and classrooms), equipment, heavy and simple machines for training area were not sufficient for implementing CBT in the TVET College. Therefore, the present study revealed that; there are lack of training materials and infrastructural facilities to conduct competency based training; i.e. there is a shortage of adequate reference books and library and access of computer; inadequate electricity supply; there is not sufficient training and workshop room in the college; insufficient machine and tools; there was not sufficient supply of teaching learning materials on time and there is not adequate materials and availability equipment in the institution. The available of instructional materials also not functional to implement competency based training. Libraries were not organized as it could help trainees and trainers to carry out different learning tasks and to satisfy their interest to read. This indicates that in Woreta TVET College there are an inadequate training materials and infrastructures with the implication of insufficient supply of facility for the TVET College to implement competency based training.

The data obtained in observation checklist also shows that there are inadequate library, training materials, laboratory and workshop rooms for trainees practice what they learn theoretically to conduct competency based training.

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary, conclusion and recommendations drawn based on the presentation, analysis, and interpretation of results made in chapter four.

5.1. Summary

The purpose of this study was to investigate the current status of competency based training program in Woreta TVET College.

In order to achieve this purpose, the following questions were raised in the study.

1. What are the level of understanding and readiness of trainees and trainers to effectively implement CBT programs in Woreta TVET College?
2. To what extent competency based training are effective in Woreta TVET College?
3. What are the qualifications of trainers to deliver competency-based training in Woreta TVET College?
4. Is the availability of training materials adequate to conduct CBT in Woreta TVET College?

To answer those basic questions the descriptive survey method of research design was used. With the intention to address the research questions; the researcher reviewed relevant literature and prepared questionnaires, interviews, observation checklist and document analysis as data gathering tools. Accordingly, open and close ended questionnaires were prepared for trainees and trainers; and interviews were made with department heads and the college dean. The questionnaires were duplicated and distributed to 83 trainees and 32 trainers; all questionnaires werereturned and analyzed. The collected data were analyzed by using SPSS (version 20). Such statistical tool as mean, weight mean, percentage and frequency were used to analyze the quantitative data; whereas descriptive analysis were used for the qualitative part.

Accordingly, this study came up with the following major findings based on analysis of both quantitative and qualitative data.

The analysis of the data shows that both trainees and trainers were fully oriented about the overall CBT and its delivery system. The result also revealed that, in Woreta TVET College trainees and trainers know the principle and objectives of competency based training. Competency-based training is conducted based on the contents of training; the theory and practice are integrated on delivering competency based training; CBT was delivered by demonstration of what trainees have learned in practice and there is a good chance of making competent skilled man power in the College.

Concerning CBT mode of delivery; trainers use lecture; discovery; project; discussion; self-paced learning; inquire and simulation method of training are delivered by using modern technology as a training method. However, methods like simulation, project, discovery, self-learning, inquiry and problem solving of training were used rarely.

There are lacks of training materials and infrastructural facilities to conduct competency based training in the College. The available of instructional materials also not functional to implement competency based training. Similarly, the data obtained in observation checklist also shows that there are inadequate library, training materials, laboratory and workshop rooms for trainees practice what they learn theoretically to conduct competency based training.

5.2. Conclusion

The CBT ensures that the TVET system in Ethiopia is better placed to serve the skill needs of employers and the labor market; but implementing the proposed CBT faces some problems which includes the lack of capital for expansion, lack of qualified trainers, inadequate physical facilities, high cost of consumable materials, obsolete machinery, poor supervision and control of operations of the schools, poor remuneration for staff and irregular payment of school fees. The existences of professional trainers are one of the most important requirements for CBT programs to get competent, skill full technician. The study revealed that the majority of the trainers have the abilities to conduct practical skill training. The study has shown that the college is suffering from lack of sufficient training

facilities, instructional materials, equipment, machines and tools. The college also compel with inadequate facilities; such as library, laboratories, workshops and class rooms. The practice workshop rooms were used as lecture rooms in the entire departments. Moreover, some buildings and workshop rooms were not constructed for the purpose of CBT program; this affect the balance of theory and practice in the provision of the training process to be implemented as intended in the CBT program.

Based on the above mentioned problems the objectives of CBT program could not be implemented as intended in the characteristics and principle of CBT.

5.3. Recommendations

Based on the findings of the study and the conclusions drawn, the study has come with the following recommendations to improve the implementation of CBT program of Woreta TVET College.

The study identified that there are lack of skilled trainers and academic staff in the College. To minimize this problem, MoE and the regional TVET bureau should strive to attract and retain qualified and competent trainers; South Gonder Zone TVET Bureau should motivate trainers by giving them to provide an opportunity of upgrading training and on job training.

Training facilities, instructional materials, machines, equipment and tools were not adequate in the TVET College. Thus, the researcher recommends that TVET College, zonal and Woreda administrations in collaboration to fulfill training materials and machines for trainees. Moreover, TVET College dean should flourished the College, compensate the shortage, solve the budget constraints, and minimize the problems in collaboration with donors.

Thus, this research cannot cover overall CBT system of Woreta TVETE College. Hence, additional research is needed to clarify challenges in the area of CBT implementation issues. More specifically, extended study is required to find out solutions for the problems attached to financial burden, training materials and infrastructural facilities.

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APPENDIX-A Questionnaires filled by trainers

Bahir Dar University

College of Education and Behavioral sciences

Department of Teacher Education and Curriculum Studies

Dear Respondent, The purpose of the questionnaire is to gather data on the current status of competency based training (CBT) in Woreta TVET College as a partial fulfillment of the requirement for the Master of Education degree in Teacher Education and Curriculum Studies. In this view you are the right person to provide relevant information for the study in which your responses have a great contribution to meet research objective. You are kindly requested to provide relevant, rigorous, and sincere response to every item in the questionnaire (without skipping). The questionnaire consists of three parts; the first part is instruction, the second part includes general background information, and the third part contains questionnaires which are intended to gather information on the current status of competency based training (CBT)**.**

Be sure that the response you provide will be kept confidential and used only for academic purpose.

Part one:

1. General directions:

I. No need of writing your name

II. please put a tick"√" mark in the boxes provided corresponding to each alternative.

III. Try to give a precise answer for the open ended questions in the space provided.

Part two:

2. Personal information

  I. Name of the college: _____

  II. Your specialization: _____

  III. Level of qualification: a) diploma ☐ b) degree ☐ c) MA/MSc and above ☐

 IV. Sex: a) Male ☐   b) Female ☐

 V. Age: a) Below 18 ☐ b) 21-25 ☐ c) 26-30 ☐ d) 30-35 ☐ e) 35&above ☐

VI. Experience in year: a) below 5   b) 5 to 10 ☐   c) 11 to 15 ☐

d) 16 to 20 ☐   e) above 20 ☐

Part three

Please Read each statement carefully and respond to each item by expressing your degree of agreement or disagreement by putting a tick "√" mark in agree - disagree column. Use the following rating scale to show your degree of agreement

The options represent

- ➢ Put a tick "√" mark in column "5" if you strongly agree.
- ➢ Put a tick "√" mark in column "4" if you agree.
- ➢ Put a tick "√" mark in column "3" if you undecided.
- ➢ Put a tick "√" mark in column "2" if you disagree.
- ➢ Puta tick "√" marks in column "1" if you strongly disagree.

5= strongly agree   4= agree   3= undecided   2= disagree   1= strongly disagree

Appendix Table 1: Trainees and trainers understanding, willingness and readiness about CBT

No	Items	Degree of agreement				
		5	4	3	2	1
1	I know the principle of competency based training					
2	I know the objectives of the competency based training					
3	I have enough orientation about competency based training					
4	I have Enough Orientation about competency based training delivery system					
5	I am ready to acquire the necessary competency in the training program					
6	I know how to engage students in competency based training					
7	I have satisfied with the competency based training programmes which been prepared by the institution					
8	The college has a competency-based training policy					

Appendix Table 2: The training process linking theory with practice

No	Items related to training process linking theory with practice	Degree of agreement				
		5	4	3	2	1
1	CBT is conducted based on the content of trainingprescribed in the course outline					
2	Trainers provide training by demonstrate the practical's before allowing learners to do the something					
3	Competency-based training is being delivered based on each competency (knowledge, skills and attitude)					
4	The trainers have adequate knowledge of their subject.					
5	Trainers are capable enough in providing practical training (skill)					
6	Trainers are enthusiastic for the training they provide (have positive attitude)					
7	The relationship between theory and practice highly integrated					
8	The trainee practices what they learned theoretically					
9	The trainers provide training by relating theory with practice					
10	practical skill training offered based on the reality of work place					

Appendix Table 3: Competency based mode of training in the College

No	Items related to competency based mode of training in the college	Degree of agreement				
		5	4	3	2	1
1	During practices trainers use much more lecture method					
2	While teaching the instructors use problem solving method to enable learners solve their problems in training					
3	During training instructors use discovery method that support learners creativity					
4	During training instructors use inquiry method					
5	During training instructors use project method					
6	During training instructors use Discussion method					
7	During training instructors use Self-paced learning					

Appendix Table 4: Competency based mode of training in the College cont.…

8	During training instructors use Simulation activities(theory and practice)					
9	During training instructors use action Demonstration					
10	During training instructors use Computer based learning					

Appendix Table 5: Training materials and facilities

No	Items related to Training materials and facilities	Degree of agreement				
		5	4	3	2	1
1	There are sufficient instructional materials to conduct competency based training					
2	The available instructional materials are functional					
3	There is the sufficient practical center to help trainees practice what they learned theoretically					
4	There are sufficient text-book to refer the difficult they face during training					
5	There are sufficient instructors guide to train practical skills					
6	Adequate electricity supply					
7	Adequate workshop spaces					
8	Availability of machines and tools					
9	Supply of teaching and learning materials are on time, and the materials are up to date.					
10	The accessibility of computers, library and books in the college very high					
11	There are sufficient learning and workshop rooms in TVET college					

III. Please write your opinion to the following questions

1. What are the current statuses of Competency based training program in Woreta TVET College?

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2. Do you believe that, competency based training program is delivered by integrating the theory with practice? How?

3.1 How competency based training implemented by considering trainees knowledge in the college?

3.2. How competency based training implemented by considering trainees skills in the college?

3.3. How competency based training implemented by considering trainees attitude in the college?

Thank **you in advance for your cooperation!!**

APPENDIX-B Interviews to Dean and Department Heads

Bahir Dar University
College of Education and Behavioral Sciences
Department of Teacher Education and Curriculum Studies
An Interview to be response by Woeta TVET College Dean and Department Heads

First, I would like to thank you to spend your time to discuss with me. The purpose of the interview is to gather additional relevant data for the current status of competency based training program in Woreta TVET College. In this view you are the right person to provide relevant data for the study. You are kindly requested to respond to every item in the interview.

Be sure that the response you provide will be kept confidential and used only for academic purpose.

Part One

I. General Information

Name of college---

Job position: --

Qualification: --

Age: --

Sex: --

Service year with the current position: ---------------------others-----------------------

Part Two

II. An interview to response by Woreta TVET college dean and department heads

(open- Ended Questions)

1. Are you familiar with the CBT program/ what information and supports you have?
2. Are trainers familiar with competency based education and training methodologies?
3. Are teaching stuff prepared for the shift to competency based training or do they view the change from a caution, hostile or defensive perspective?
4. Are the trainers of the institution having relevant knowledge to givecompetency based training? If not; what measures are taken to alleviate the existing problem?
5. Are the trainers of the institution having relevant skill to givecompetency based training? If not; what measures are taken to alleviate the existing problem?

6. Are the trainers of the institution having positive attitude on the competency based training? If not; what measures are taken to alleviate the existing problem?

Thank you in advance for your cooperation!!!

APPENDIX-C Questionnaires filled by trainees

በባህር ዳር ዩኒቨርስቲ
የትምህርትና ስነ ባህርይ ሳይንስ ኮሌጅ
የመምህራን ትምህርትና ስርዓተ ትምህርት ጥናት ትምህርት ክፍል
በወረታ ቴክኒክና ሙያ ስልጠና ኮሌጅ ለሰልጣኞች የተዘጋጀ መጠይቅ

የመጠይቅ አላማ :-

የዚህ መጠይቅ አላማው በወረታ ቴክኒክና ሙያ ትምህርትና ስልጠና ኮሌጅ ብቃትን መሠረት ያደረገ ስልጠና መርሃ ግብር አተገባበር ያለበትን ሁኔታ ለማየት ነው። ይህ ጥናት የሚሰራው በስርዓተ ትምህርት ጥናት ሁለተኛ ድግሪ ለማግኘት ነው። በዚህ መሠረት ትክክለኛው ሰው አንተ/አንቺ ስለሆናችሁ የምትሰጡት መረጃ ለጥናቱ ትልቅ አስተዋጽኦ አለው። ስለሆነም በመጠይቁውስጥላለውእያንዳንዱ ሃሳብ ጥብቅ እናቅንምላሽእንዲሰጡበእክብሮትተጠይቀዋል። መጠይቁሶስትክፍሎችንያቀፈ ነውየመጀመሪያው ክፍልመመሪያ ነው ፤ ሁለተኛው ክፍል አጠቃላ ይስለ እናንተመረጃንያካትታል ፤ ሶስተኛው ክፍል ደግሞ ብቃትን መሠረት ያደረገ ስልጠና (Competence Based Training) በተቋማችሁ ያለበትን ሁኔታ መረጃለመሰብሰብ የታቀዱ መጠይቆችን ይይዛል። ለሁሉም መጠይቆች መልስ እንድትሰጡ ከወዲሁ በትህትና እጠይቃለሁ። አንተ/አንቺ የምትሰጡትምላሽ፣ አስተያየትና የመፍትሔ ሃሳብ በሚስጥርእንደሚጠበቅ እና ለዚህ ትምህርት ጥናት አገልግሎት ብቻ የሚውል መሆኑን አረጋግጣለሁ።

ለሚደረገልኝ ትብብር በቅድሚያ አመሰግናለሁ።

ክፍል አንድ

አጠቃላይ መመሪያ

1. ስም መፃፍ አያስፈልግም

2. እባክዎ ካለት አማራጮች ውስጥ የ "√" ምልክት ባለው ሳጥን ውስጥ ይመሉ።

ክፍል ሁለት

 የግል መረጃ

1) የስልጠና ኮሌጅ ስም--------------------------------

2) የስልጠና ዓይነት---------------------------------------

3) ጾታ፦   ሀ) ወ ☐   ለ) ሴ ☐

4) ዕድሜ   ሀ) ከ18 ዓመት በታች ☐   ለ) ከ19-21 ዓመት ☐   ሐ) ከ22-25 ዓመት ☐ , 26 እና በላይ ☐

5) የስልጠና ደረጃ ሀ) ደረጃ I ☐   ለ) ደረጃ II ☐   ሐ) ደረጃ III ☐   መ) ደረጃIV ☐

ክፍል ሶስት

እያንዳንዱን ዓረፍተ ነገር በጥንቃቄ ካነበባችሁ በኋላ የምትስጡትን መልስ መስማማት ወይም አለመስማማታችሁን የ "√" ምልክት በመልሱ አንፃር አስቀምጡ፤የስምምነት ዎንደረጃለማሳየትየሚከተለውንየደረጃመስኪያይጠቀሙ፡፡ አማራጮቹየሚወክሉት፤

➢ በጣም እስማማለሁ ከሆነ 5 ቁጥር ላይ የ "√" ምልክት ያስቀምጡ፤
➢ እስማማለሁ ከሆነ   4 ቁጥር ላይ የ "√" ምልክት ያስቀምጡ፤
➢ አልወስንም ከሆነ   3 ቁጥር ላይ የ "√" ምልክት ያስቀምጡ፤
➢ አልስማማም ከሆነ   2 ቁጥር ላይ የ "√" ምልክት ያስቀምጡ፤
➢ በጣም አልስማማም ከሆነ 1 ቁጥር ላይ የ "√" ምልክት ያስቀምጡ፤

ተ.ቁ	ብቃትንመሰረት ያደረገስልጠና ጋር የተያያዙ ጥያቄዎች	የስምምነት ደረጃ				
		5	4	3	2	1
1	ብቃትንመሰረት ያደረገስልጠናመርሆዎችን ምን ምን እንደሆኑ አውቃለው					
2	ብቃትንመሰረት ያደረገስልጠና አላማውን አውቀዋለሁ					
3	ብቃትንመሰረት ያደረገስልጠና ምን እንደሆነበቂግንዛቤአለኝ					
4	በብቃትላይየተመሰረተየስልጠናአሰጣጥስርዓት ላይ በቂግንዛቤ አለኝ					
5	በስልጠናፕሮግሙአስፈላጊውንብቃትለማግኘትዝግጁነኝ					
6	መምህራን በብቃትላይየተመሰረተስልጠና ለመስጠት ስልጣኖችን እንዴትማሳተፍእንደሚቻልያውቃሉ					
7	በተቋሙበተዘጋጀበብቃትላይየተመሰረተየስልጠናመርሃግብሮችረክተዋል					
8	ኮሌጁበብቃትላይየተመሰረተየሥልጠናፖሊሲአለው					

ተ.ቁ	ብቃትንመሰረት ያደረገስልጠናእንዴትእየተሰጠ መሆኑ ጋርየያያዙእቃዎች	የስምምነት ደረጃ				
		5	4	3	2	1
1	ብቃትንመሰረትያደረገስልጠናየሚሰጠውበስልጠናውይዘትላይበመመስረት ነው					
2	በብቃትላይየተመሰረተስልጠና አሰጣጡ ተማሪዎች በክፍል የተማሩትንበተግባርማሳየትን ያካተተ ነው					
3	ብቃትንመሰረትያደረገስልጠናእየተሰጠነው (ዕውቀት፣ችሎታእናአመለካከት)					

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4	አሰልጣኞቹስልጠናውንስለመስጠት በቂ ዕውቀት አላቸው					
5	አሰልጣኞችየተግባርስልጠናስለመስጠትበቂብቃት አላቸው(ችሎታ)					
6	አሰልጣኞችለሚሰጡትስልጠና ጥሩ አመለካከትያላቸው					
7	በንድፈሀሳብ ደረጃ የተማርነውና እናበተግባርየምንሰራው ተያያዥ ነው					
8	ሰልጣኞች በክፍል ውስጥ የተማርነውንበተግባር እንለማመዳለን					
9	አሰልጣኞቹንድፈሃሳብንከተግባር ጋርበማያያዝስልጠናይሰጣሉ					
10	የተግባርክህሎትስልጠናክስራአለም ጋርየተያያዘነው					

		የስምምነት ደረጃ				
ተ.ቁ	ከማስተማሪያዘዴዎች ጋርየተያያዙ ጥያቄዎች	5	4	3	2	1
1	አሰልጣኞችመምህር ተኮር የማስተማርዘዴንያይጠቀማሉ					
2	አሰልጣኞችችግሮች የሆነ የማስተማር ዘዴንያይጠቀማሉ					
3	አሰልጣኞችየግንኙትየማስተማር ዘዴንያይጠቀማሉ					
4	አሰልጣኞችበመጠይቅ የማስተማርዘዴንያይጠቀማሉ					
5	አሰልጣኞችየፕሮጀክትየማስተማር ዘዴንያይጠቀማሉ.					
6	አሰልጣኞችበውይይትየማስተማር ዘዴንያይጠቀማሉ					
7	አሰልጣኞችራስ ተኮር የማስተማር ዘዴንያይጠቀማሉ					
8	አሰልጣኞችየማመሳሳልተግባራትን ይጠቀማሉ (ቲዎሪእናልምምድ)					
9	አሰልጣኞችበተግባርየተደገፈ የማስተማር ዘዴንያይጠቀማሉ					
10	ትምህርቱ ኮምፒዩተርበመጠቀምይሰጣል					

		የስምምነት ደረጃ				
ተ.ቁ	ከቁሳቁስአቅሮት ጋርተያያዙጥያቄዎች	5	4	3	2	1
1	በብቃትላይየተመሰረተስልጠናለማካሄድበቂየማስተማሪያቁሳቁሶች አሉ					
2	ያሉትየትምህርትቁሳቁሶችአገልግሎት ይሰጣሉ					
3	ሰልጣኞችበንድፈ.ሀሳብየተማሩትንእንዲተገብሩለመርዳትየሚያስችልበቂየተ ግባር መስጪ ማእከልአለ					
4	የሚያጋጥሟቸውንችግሮች ለመፍታትበቂየማሪያመጽሐፍአሉ					
5	ስልጠናውን በተግባር የተደገፈ ለማድረግ በቂ የአሰልጣኞችመምሪያአሉ።					
6	በቂየኤሌክትሪክአቅሮት አለ					
7	በቂያርክሽፐቦታዎች አሉ					
8	የተግባር ልምምድ ለማድረግ በቂ የሆኑ ማሸኖችእናመሳሪያዎችአሉ					
9	የመማርማስተማሪያቁሳቁስአቅሮት ወቅቱ የሚፈገውን ደረጃ ያሚሉናቸው.					
10	ኮምፒዩተሮች፣ቤተ-መጻሕፍትእና መማሪያ መጻሕፍትአለ					
11	በቴክኒክናሙያኮሌጅ ውስጥበቂየመማሪያናወርክሾፕ ክፍሎችአሉ።					

እባክዎንስለሚከተሉትጥያቄዎችግልጽ የሆነ ሃሳብዎንይዛፉ::

1. የወረታቴክኒክናሙያትምህርትናሥልጠናብቃትን መሰረት ያደረገ ስልጠናመርሃግብር በመስጠት ዙሪያ አሁንበምንደረጃላይገኝታችኛል? ምንስ እየተደረገ ነው

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2. በብቃትላይየተመሰረተየስልጠናመርሃግብርየሚሰጠውቲምሪንክተግባርጋርበማዋሃድነው ብለውያምናሉ? እንዴት?

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3. በኮሌጅ ውስጥ የስልጣኖችን ዕውቀት መሰረት በማድረግ በብቃት ላይ የተመሰረተ ስልጠና እንዴትተግባራዊእየሆነ ነው?

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4. በኮሌጅውስጥየሰልጣኞችንክህሎትበማገናዘብበብቃትላይየተመሰረተስልጠናእንዴትይተገበ ራል?

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5. በኮሌጅውስጥየሰልጣኞችንአመለካከትከግምትውስጥበማስገባትበብቃትላይየተመሰረተስል ጠናእንዴትተግባራዊይሆናል?

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ስለትብብርዎእመሰግናለሁ!!!

APPENDIX-D Observation Checklists

Bahir Dar University
College of Education and Behavioral sciences
Department of Teacher Education and Curriculum Studies
Observation Checklist about the Current Status of CBT at Woreta TVET College

I. General information

l. Training course (being observed) --------------------------------------

2 No of trainees in the class/workshop: Male---------- Female--------- Total --------

II. Details in classroom/workshop/

Instruction: tick a "√" mark in column "Yes", if the appropriate activity is observed and tick a "√" mark in column "No", if the appropriate activity is not observed.

Appendix Table 6: The availability of workshops to implement CBT

No	Items	Measurement		
		Yes	To some extent	No
1	Library services and facilities are available			
2	Machines and Computers for the training are adequately available.			
3	Reference books are adequately available			
4	Sufficient lecture rooms are adequately available			
5	Electricity service are adequately available			
6	Water services are adequately available			
7	The training center equipped with modern and adequate tools and equipment in relation to the current CBT implementation			
8	Instructional materials for training are provided at the right time			
9	Training materials that helps for practical learning are adequately available			

Appendix Table 7: Trainers ability to arrange workshops as per CBT required

No	Items	Measurement		
		Yes	To some extent	No
1	The trainers implement outcome based training			
2	The trainers assist their trainees willingly both during classroom & field training			
3	The trainers provide training by relating theory with practice			
4	Trainers Promote technology transfer in the college			
5	Trainers encourage all trainees in individual and group work in CBT?			
6	The instructor intervene in the trainees work appropriately to encourage the progress			

Appendix Table 8: The availability of facilities and services

No	Facilities	Measurement		
		Adequately Available	Moderately Available	Not Available
1	Availability of water supply to implement CBT			
2	Availability electricity to implement CBT			
3	Availability of enough training rooms to implement CBT			
4	Adequacy of the library for trainees			
5	Availability of laboratories/workshops by considering CBT			
6	Office for co –curricular activities to implement CBT			
7	Availability of field training facilities to implement CBT			