



ADDIS ABABA UNIVERSITY
LIBRARIES
P.O. BOX 1176
ADDIS ABABA ETHIOPIA

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
COLLEGE OF EDUCATION & BEHAVIORAL STUDIES
DEPARTMENT OF BUSINESS EDUCATION

PRACTICES AND CHALLENGES OF OUTCOME-BASED
TRAINING IN SELECTED TECHNICAL AND VOCATIONAL
EDUCATION AND TRAINING INSTITUTIONS: THE CASE
OF INSTITUTIONS IN ARSI ZONE



BY:

BEZAWORK MESKELU

JUNE 2010

ADDIS ABABA



ADDIS ABABA UNIVERSITY
LIBRARIES
P.O. BOX 1176
ADDIS ABABA ETHIOPIA

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
COLLEGE OF EDUCATION & BEHAVIORAL STUDIES
DEPARTMENT OF BUSINESS EDUCATION

PRACTICES AND CHALLENGES OF OUTCOME-BASED
TRAINING IN SELECTED TECHNICAL AND VOCATIONAL
EDUCATION AND TRAINING INSTITUTIONS: THE CASE
OF INSTITUTIONS IN ARSI ZONE



BY:

BEZAWORK MESKELU

JUNE 2010

ADDIS ABABA

**PRACTICES AND CHALLENGES OF OUTCOME-BASED
TRAINING IN SELECTED TECHNICAL AND VOCATIONAL
EDUCATION AND TRAINING INSTITUTIONS: THE CASE
OF INSTITUTIONS IN ARSI ZONE**

**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES
OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF
THE REQUERMENTS FOR M.A. DEGREE IN MANAGEMENT OF
VOCATIONAL EDUCATION**

BY:

BEZAWORK MESKELU

JUNE 2010

ADDIS ABABA

Acknowledgments

Above all, from the deepest of my soul, I thank Almighty God who stands against all my obstacles to reach where I am now.

My greatest indebtedness is to my advisor, Ato Girma Zewudie, Associate Professor, for his unreserved professional assistance, constructive comments and technical support throughout the study, without which the completion of this study would have been rather difficult.

I am very much grateful to my wife, W/ro Yeshihareg Ayele for her encouragement and moral support throughout my study.

My special gratitude goes to Ato Esayas Tesfaye Ayele who gave me financial assistance, material and moral support that helped me complete my study. Similarly, my thankfulness also extends to Ato Daniel Mamo for his cooperation and unreserved support.

My special thanks also go to all samples TVET institutions' deans/directors, training process owners, trainers and trainees who cooperated with me during the data collection.

My special thanks are also extended to my beloved daughter Eskedar Bezawork for her continuous support whenever in need and concern for my success throughout my study.

Last but not least, my gratitude goes to my son Wondayehu Bezawork, Abel Ketema and my daughter Hagere Bezawork for their encouragement and tolerance during my study.

Table of Contents

CHAPTER ONE	Page
1. INTRODUCTION -----	1
1.1 Background of the Study-----	1
1.2 Statement of the Problem-----	4
1.3 Objectives of the Study -----	5
1.3.1 General Objective -----	5
1.3.2 Specific Objectives -----	5
1.4 Research Questions -----	5
1.5 Significance of the Study-----	6
1.6 Delimitation of the Study -----	6
1.7 Limitations of the Study-----	7
1.8 Operational Definition of terms-----	7
1.9 Organization of the Study-----	9
CHAPTER TWO	
2. REVIEW OF RELATED LITERATURE-----	10
2.1 The Nature and Purpose of Outcome-Based Training-----	10
2.1.1 Concepts of Outcome-Based Training-----	11
2.1.2 Characteristics of Outcome-Based Training-----	15
2.2 Fixing Institutions' for Outcome-Based TVET-----	18
2.3 The Need of Outcome-Based Training-----	18
2.4 Outcome-Based Training Assessment-----	19
2.4.1 The need of assessment -----	19
2.4.2 Criterion-referenced assessment -----	21
2.5 Major Factors Affecting Outcome-Based Training Implementation-----	24
2.6 The Role of Trainers in the Execution of Outcome-Based Training-----	27
2.6.1 The Role of Trainers in Outcome-Based Training approach-----	27
2.6.2 Constraints Facing the Trainers in Outcome-Based Training-----	28

2.6.3 Explicit Problems and Challenges of Trainers in Outcome -Based Training-----	30
2.7 Conditions for Effective Execution of Outcome-Based Training-----	31
2.8 Manageability of Competence-Based Training-----	34
2.9 Experiences of Other Countries on Competency-Based Training -----	36
2.9.1 Occupational Standards and Support Materials in Australia-----	36
2.9.2 Some trends in Africa -----	36

CHAPTER THREE

3. Research Design and Methodology -----	38
3.1 Research Method -----	38
3.2 Data Sources-----	38
3.3 Sample Size and Sampling Techniques -----	38
3.4 Data Collection Instruments and Procedures-----	40
3.4.1 Instruments for Data Collection-----	40
3.4.2 Procedures of Data Collection-----	41
3.5 Pilot Study-----	42
3.6 Methods of Data Analysis -----	42

CHAPTER FOUR

4. Presentation, Analysis and Interpretation of data -----	43
4.1 Background Interpretation of Respondents -----	43
4.2 Analysis and Interpretation of the Data -----	45
4.2.1 Orientations Related to Outcome-Based Training -----	45
4.2.2 Issues Related to Availability of Resources -----	50

CHAPTER FIVE

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS -----	69
5.1 Summary-----	69
5.2 Conclusions -----	73
5.3 Recommendations-----	74

References -----	76
-------------------------	----

Appendices

Appendix A-----	A1
Appendix B-----	B1
Appendix C-----	C1
Appendix D-----	D1
Appendix E-----	E1
Appendix F-----	F1

List of Tables

	Page
Table 1: Description of Population of Trainees and Trainers by Field of Training -----	40
Table 2: Respondents by Sex, Age and Trainers' qualification -----	44
Table 3: Respondent Trainees and Trainers Views Regarding OBT -----	45
Table 4: Respondents' Understanding of OBT-----	47
Table 5: Respondent Trainers' Views about the Extent of Availability of Physical Resources -----	50
Table 6: Training Materials and Equipment as Observed by Trainers -----	52
Table 7: Emphasis of Administrative Personnel on Outcome-based Training as Viewed by Trainers-----	54
Table 8: Responses of Trainers in Designing Outcome-Based Training -----	55
Table 9: Trainees' and Trainers' Views on adequacy of training up to the Predefined Performances of Occupation -----	56
Table 10: Responses of Trainees and Trainers concerning monitoring and assessment of outcome-based training-----	58
Table 11: Feeling toward the Implementation of an Outcome-based Training as Viewed by Trainers-----	60
Table 12: Methods/ Strategies that Trainer Employ to Deliver an Outcome-based Training as Observed by Trainees-----	62
Table 13: Factors Affecting the Implementation of Outcome-based Learning as Viewed by Trainees -----	65
Table 14: Factors Affecting the Implementation of Outcome-based Learning as Viewed by Trainers-----	67

List of Abbreviation

EOS: Ethiopian Occupational Standards

MoE: Ministry of Education

OBT: Outcome Based Training

OS: Occupational Standard

TTLM: Teaching, Training and Learning Material

TVET: Technical and Vocational Education and Training

Abstract

The Ethiopian TVET system, in line with many modern TVET systems worldwide is organized as an outcome-based system. To this end, identified competences needed in the labor market will become the final benchmark of training and learning, and that all institutions, rules and regulations of the TVET system defined so that they support trainees to become competent. However, the intended goal could not be attained without the fulfillment of required resources (human and physical). Therefore, it has become indispensable to conduct a research under the title 'Practices and Challenges of Outcome-based Training in Selected Technical and Vocational Education and Training Institutions: the Case of Institutions in Arsi Zone'. Athlet Kenenisa Bekele TVET College and Asella TVET Institute were selected for the study based on stratified sampling technique. The subjects of the study were two Deans/Directors, two training process owners, 44 trainers and 178 trainees, and they were selected based on purposive, quota and random sampling techniques as appropriate. The purpose of this study was to assess the implementation of OBT in public TVET institutions. For the execution of this study, descriptive survey method was employed. In this endeavor, data were collected through questionnaires, interview, observation, and document analysis. Questionnaires were distributed to simple randomly selected trainees from each considered departments and trainers. Interviews were conducted with deans, directors, and training process owners. For data analysis statistical tools such as percentage, mean value and chi-square were used. The study revealed that the competence and fitness of the trainers were low; the adequacies of workshop /laboratory including training materials and equipment for OBT were inadequate. Accordingly, there was no adequate training up to the predefined performances stated in EOS. Moreover, there was lack of on-job training on difficult unit of competences within Occupational Standard. Real work place/situation, the major important unit of OBT to provide practical training was missing. Finally, in light of the major findings of this study and conclusions made, recommendations are forwarded in order to improve OBT.

CHAPTER ONE

1 Introduction

1.1 Background of the Study

Education aims at creating teaching and learning environment that would bring about desired changes in learners, whether to be more knowledgeable, better skilled or to influence their attitudes and values positively. The essence of teaching and learning is to plan teaching events (contents, strategies, etc) and to ascertain to what extent learners have acquired the intended competences (SPT Malan, 2000).

Outcome-based education is an institutional process that moves education from focusing on what academics believe graduates need to know (teacher-focused) to what students need to know and be able to do in varying and complex situations (student and/or workplace focused). Therefore, competence based education is focused on outcomes (competences) that are linked to workforce needs, as defined by employers and the profession.

Spady (1994), defines Outcome-based education as a ... comprehensive approach to organizing and operating an education system that is focused on and defined by the successful demonstrations of learning sought from each student. Outcomes are ... clear learning results that we want students to demonstrate at the end of significant learning experiences ... and ... are actions and performances that embody and reflect learner competence in using content, information, ideas, and tools successfully.

Furthermore, Spady (1994) explained the roots of outcome-based education; concedes that the world is filled with examples of outcome -based models, and even that outcome -based systems go back at least 500 years to the craft guilds of the middle ages. The concept of outcomes -based models and systems is therefore not new.

Britain has adopted a competence-based approach, called National Vocational Qualifications (NVQs). There was, until 1993, no direct link required between academic attainment and

work-based competence. There is no clear and cost-effective system for accrediting competences at work, and the system purports to achieve both portability between different types of occupation and to provide useful detailed analysis of the skills required for a particular job-objectives which are mutually incompatible (Lorriman, 1996) .

Competence is a wide concept which embodies the ability to transfer skills and knowledge to new situations within the occupational area. It encompasses organization and planning of work, innovation and coping with non-routine activities. It includes those qualities of personal effectiveness that are required in the workplace to deal with co-workers, managers and customers (Fletcher, 1994). Along these lines, competencies (outcomes) are behaviors that encompass the knowledge, skills, and attributes required for successful performance. In addition to intelligence and aptitude, the underlying characteristics of a person , such as traits, habits ,motives, social roles, and self-image, as well as the environment around them, enable a person to deliver superior performance in a given job, role, or situation.

Arguelles and Gonczi (2000) examined the implementation of competence-based education and training in a number of countries. They provided case studies of the application of competence-based education and training to VET systems in countries including Mexico, Australia, Costa Rica, France and New Zealand. According to Miller (2001), these case studies provided insight into the implementation of competence-based education the various cultural and educational systems and showed the importance of having the various stakeholders (particularly government, industrial bodies, the education profession and enterprises) working together with a common purpose.

A judgment of 'competence' denotes that individuals are able to produce the desired outcomes within the requirements of their work role. This may mean that the individual is able to complete the same activity using a range of equipment or materials, or that they can complete a number of activities within a working context, or within a range of contexts (Fletcher, 1994). Unlike traditional, curriculum-based (input) standards, which are linked to a specific training or learning program (and also linked to predefined forms of assessment), new competence-based standards are completely independent of both training and assessment

processes. Therefore, criterion-referenced assessment is the preferred mode of assessment in outcome-based education.

The Ethiopian MoE has committed itself to find ways to equip young people with marketable skills through OBT, with the overarching objective of increased wealth creation and increased social and political stability. Since 2006/07, employment and vocational training administration in Ethiopia has promoted OBT for vocational training. To this end, the Ethiopian TVET system, in line with many modern TVET systems worldwide, has been reorganized into an outcome based system. This means that identified competencies needed in the labor market will become the final benchmark of training and learning (MoE, 2008b).

Thus, as it is mentioned above outcome based education is an education system which clearly defines the goals and the abilities in learning process for students to achieve. The underlying idea is that vocational education should enable students to acquire the competences needed in their future profession, and in society as a whole. Additionally, while working as professionals, they should continue to develop their competences so that they are able to react to and anticipate future developments in their work.

As a result, training providers (TVET institutions) may meet many problems on their road to create competent trainees. This may be because of their limited understandings on outcomes and predefined standards on what trainees can do. Nevertheless, this can be accomplished by using actual training equipment/machine/materials, real work-place samples, and competent trainers and by providing solutions so that the trainee can use to accomplish their actual job requirements. Thus, it is the time to conduct a research on the innovation that whether OBT delivery system is up to the ideal features of the OBT approach to exit or not.

1.2 Statement of the Problem

Outcome-Based Training (OBT) is training that is provided to acquire the competences identified in the skill standard for a given occupation. In OBT, the focus is on the achievement of competences, not the time spent on training.

According to the Ethiopian national technical and vocational education and training strategy (MoE, 2008b), in the outcome-based TVET system, the goal of TVET providers is to create the necessary skills, knowledge and attitudes of trainees, so that they are able to perform according to occupational standards.

As Mulder (2004) noted, translating competence-oriented goals into actual learning activities is crucial in the implementation of competence-based education. If the implementation gets stuck at the preparation phase and/or does not get carried into the execution phase, true innovation will fail. The lack of understanding on the requirements of OBT delivery system by training provider institutions may lead to less performance.

In the implementation of this training approach this student researcher as a staff member of the Regional TVET Agency, observed some complaints from training provider institutions not having an in-depth understanding about outcome-based training approach and lack of proper orientation that enables them to properly accomplish their mission. This shows that there are some problems which face the TVET institutions to implement effectively outcome-based training. Moreover, taking the experiences of the student researcher into consideration, it can be said that the training approach is highly affected by the shortage of qualified personnel, lack of appropriate training equipment/machines to a given occupation standard and insufficient raw materials for training. Therefore, the need of supportive and positive environment is influential for the execution of OBT. The lack of this situation finally creates a difficulty on trainers in terms of delivering the TVET outcome-based curriculum. To this end, it was very essential to examine whether the existing OBT practices maintain standard or not.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this study was to examine the practices and challenges of OBT in TVET institutions. To this end, the specific objectives on the study were targeted towards providing solutions to the basic research questions raised.

1.3.2 Specific Objectives

- To identify the degree to which the human and physical resources and facilities deployed are up-to the requirement of the OBT program;
- To assess the practices of OBT in the Zone;
- To find out the challenges that have encountered in OBT delivery system;
- To assess the views of professionals and trainees on the subject of OBT.

1.4 Research Questions

In order to meet the objective of the study, the following basic research questions were addressed as a guide for treating the problem:

1. To what extent are the human and physical resources requirements for the OBT fulfilled?
2. How do professionals and trainees view OBT in the Zone?
3. How are the competences of training fields currently assessed in the TVET institutions?
4. What are the factors affecting OBT delivery system?

1.5 Significance of the Study

The student researcher feels that the study results are believed to have the following significance:

- The study would help to examine the current state of OBT implementation in Oromia Regional State.
- The study could enable all concerned parties to give valuable information on the actual status of OBT implementation in the region.
- It would pave the way for other researchers who want to conduct an in-depth study on implementation of OBT in training institutions.
- It would suggest ways and means of improving OBT implementation in technical and vocational education institutions for stakeholders.

1.6 Delimitation of the Study

In order to accomplish the study successfully in terms of magnitude, area to be covered, and resources required to conduct the research, delimitation is mandatory.

The study was delimited to Athlete Kenenisa Bekele TVET College and Asella TVET institute, in Arsi Zone, Oromiya Region. The rationale why the student researcher selected the TVET institutions is that, these institutions are in a position of providing education and training in several different fields of study. Moreover, the relative availability of human and non-human resources was also taken into account. The student researcher chose the training institutions for the following major reasons: These institutions were the largest institutions as a group in the Zone. The student researcher, therefore, believed that the institutions have sufficient information about the practice and challenges of training provision. Secondly, the total number of trainees and diversity of training fields are higher than in others.

1.7 Limitations of the Study

OBT is relatively new trend in Ethiopia, and thus, absence of adequate literature in the area made the student researcher feel that sufficient evidence was not presented to supplement the study in Ethiopian context. Financial and time constraints were also among the major limitations of the study. Anyways, the researcher made all possible effort to over come the problems.

1.8 Operational Definition of terms

Assessment: Process of collecting evidence and making judgments on whether competence has been achieved. (MoE, 2008c).

Attitudes: Part of competence that describe the appropriate way of behaving at a workplace in relation to a certain occupation at a certain level (MoE, 2006a).

Competence: Sum of interrelated abilities position and application of knowledge, behavioral patterns and skills, and ability to combine these elements at any given time (MoE, 2006a).

Competence standard: An industry-determined specification of performance which sets out the skills, knowledge and attitudes required to operate effectively in employment (InWEnt, 2005).

Competence-based assessment: The gathering and judging of evidence in order to decide whether a person has achieved a standard of competence (InWEnt, 2005).

Knowledge: Part of competence that describe all background information (theory) pertaining to the activities such as technology theory (MoE, 2006a).

Occupation: Broad term denoting a group of inter-related activities or any distinct type of manual or non-manual work which can provide a means of livelihood, whether undertaken in employment or in self-employment. (MoE, 2006a).

Occupational standards: Definition of range of competences that should be achieved through TVET in order to enable a person to perform in a given occupation basis against which an individual's performance is assessed through occupational testing (MoE, 2006 a).

Occupational testing: System to assess the competence of people as a precondition for being awarded a recognized TVET qualification (MoE, 2006a).

Performance criteria: The part of a competence standard specifying the required level of performance in terms of a set of outcomes which need to be achieved in order to be deemed competent (InWEnt, 2005).

Qualification: A defined set of competences identified by the industry which meets whole work roles. In TVET context, it is expressed by meeting the required competences of the occupational standard (MoE, 2008c).

Skills: Aspect /part of competence that describes all methods and techniques that are related to activities (MoE, 2006a).

Technical and Vocational Education and Training: The study of technologies and related sciences, the acquisition of practical skills and knowledge related to occupations in various sectors economic and social life (UNESCO, 1984).

Unit of Competence: It is a coherent and explicit grouping of performance specifications within an occupational profile, which involves the application of knowledge, skills and any other ability required in the workplace. (MoE, 2009f).

1.9 Organization of the Study

The study consists of five chapters. The first chapter includes introduction of the study: statement of the problem, significance of the study, delimitation of the study, limitation of the study, definition of operational terms. The second chapter deals with review of related literature. The third chapter contains research design and methodology. The fourth chapter comes with data presentation, analysis and interpretation. The collected and analyzed data through the application of different instruments is discussed in this part. The summary of findings, conclusions and recommendations of the study are presented in the fifth chapter. Lastly, bibliography and appendices are made part of the thesis.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 The Nature and Purpose of Outcome-Based Training

This chapter provides hints, facts and ideas for research of the study reviewing the literatures related to Technical and Vocational Education and Training approach based on one of the focus areas of “Outcome-Based Training”. According to the information (Wikipedia, the free Encyclopedia), Outcome-Based Education is a recurring education reform model. It is a student-centered learning philosophy that focuses on empirically measuring student performance, which is called *outcomes*. This means outcome-based education is a model of education that rejects the traditional focus on what the school provides to students, in favor of making students demonstrate that they “know and are able to do” whatever the required outcomes are.

Where as competence-based training is an approach to vocational education and training that places emphasis on what a person can do in the workplace as a result of completing a program of training or based on workplace experience and learning. Moreover, the training focuses on the skills required to competently complete tasks necessary to fulfill any employment role. Gasko (2004) elaborates competence-based programs are also used to increase employees' current job performance, prepare them for changing job requirements or introduce new tools or technology in the work place. Under this training approach, each learner is assessed to find the gap between the skills they need and the skills they already have.

With the above understanding of training approaches the emphasis of this study is on “Outcome-Based education” which is outcome-based training programs conducted in TVET institutions.

2.1.1 Concepts of Outcome-Based Training

Competence –based education implies creating opportunities for students and workers, close to their world of experience in a meaningful learning environment (preferably professional practice) where the learner can develop integrated, performance-oriented capabilities for handling the core problems in practice.

The underlying philosophy of an outcomes-based approach to education and learning which, in simple terms, means focusing clearly and organizing everything in an educational system around what is essential for all learners to be able to do successfully at the end of their learning experiences. This means starting with a clear picture of what is important for learners to be able to do, then organizing curriculum, instruction, and assessment to make sure this learning ultimately happens (Spady, 1994).

From the above points mentioned, competent performance is described in terms of the competence to be performed and a set of standards applied to that performance that covers both routine and non-routine skills. It allows the development of a continuum of competence statements from basic to complex. The most important element of a competence-based system of training is the final decision-making process, that is, whether the competence can be inferred from the performance evidence collected.

According to Botha (2002), the concept of outcomes-based education began with a commonsense idea, namely that the quality of education should be judged by focusing on learner outcomes or results. This means that outcomes-based education is primarily concerned with focusing on what learners actually learn, and how well they learn it and not on what learners are supposed to learn. This concept represents a shift from the traditional paradigm (i.e. where when learners are supposed to learn is most important) to the outcomes-based education paradigm (i.e. where whether learners learn something well, rather than when they learn it, is most important).

Based on this, the criteria for an outcomes-based education training program are:

1. Content directly related to work

2. Focus on doing
3. Evaluation based on industry work standards

So developing outcomes-based education is a process. Follow the process and end up with learners who can perform.

A training program which does not reflect accurately the content of the job is soon revised or abolished. Training programs, as well as other personnel activities, must realistically fit the jobs to which they apply (Cliffs, 1965).

As a result the term outcome-based education suggests a training system; OBT is primarily an assessment system. The concept of competence focuses on learning outcomes, on exit requirements, on performance standards, on what is expected of an employee in the workplace, rather than on the learning process itself and on entrance requirements.

According to MoE (2008b), competences is a broad concept comprising the possession and application of a set of skills, knowledge and attitudes which are necessary to successfully compete for jobs in the labor market; to be a productive and adaptable entrepreneur, employee or self-employed, and thus to contribute to personal empowerment in economic and social development.

In addition to the above, MoE (2008e), stated that: Competence involves successful work performance. As such it is usually seen to comprise four dimensions, namely:

1. *Task skills* – this involves undertaking a specific workplace task[s].
2. *Task management skills* – this involves managing a number of different tasks to complete a whole work activity.
3. *Contingency management skills* – this involves responding to problems and irregularities when undertaking a work activity. This may involve dealing with:
 - ❖ breakdowns
 - ❖ changes in routine
 - ❖ unexpected or atypical results or outcomes

- ❖ difficult or dissatisfied clients
4. *Job/role environment skills* – this involves dealing with the responsibilities and expectations of the work environment when undertaking a work activity. This may involve:
- ❖ working with others
 - ❖ interacting with clients and suppliers
 - ❖ complying with standards operating procedures
 - ❖ observing enterprise policy and procedures.

With this understanding, the past training approach was instruction-based with fixed time (1-3 year-courses), the focus was on instruction and tests basically reflect to which extent a learner has absorbed the instruction. Outcome learning as underlying principle in competence-based education, the concept is fundamentally different, in that the focus is on predetermined performance standards, i.e. on the content (what?) and on the proficiency (how well?). In the concept of outcome learning the emphasis is on the expected outcome, which should be reached by most of the learners. In the concept of outcome learning the time it takes a learner to reach the required performance standard is variable.

Subsequently individualized instruction, variable time per skill, and outcome learning are the basis of outcome-based training programs. Throughout assessment a word likely to hear often is competence. Therefore, being competent according to MoE (2008c) is:

- a) having the skills, knowledge and attitudes to do the job (e.g. preparing a salad, troubleshooting an engine, repairing an air conditioning unit)
- b) understanding why the job should be done in a certain way (e.g. preparing a salad to complement a seafood dish, troubleshooting an engine to run a car)
- c) being able to do different tasks at the same time (e.g. preparing salad while watching another dish cook)
- d) dealing with everyday problems as they arise (e.g. what to do when materials are not in stock or managing an upset client)

- e) understanding workplace policies and procedures (e.g. reporting to the right person, filling out paperwork)
- f) working with others in the workplace (e.g. cooperating and communicating well with co-workers, supervisors, managers and customers)

Gasko (2004) likewise, stated 'Competence is often defined as a combination of awareness, skills, knowledge and attitude that enables an individual to perform a job to the standards required for successful job performance. In other words, competence deals with "what is expected in the workplace" with the emphasis on performing an actual job'.

Moreover, a competence-based program needs to focus on building the knowledge and skills needed in a particular job. Since these "competences" are derived from actual job requirements. Thus the role of training providers is critical to the creation and implementation of the program.

With the above understanding of competence-based training Gasko (2004), recommended that training providers need to follow the basic concepts so that the maximum benefit is obtained from the training activities. These would be:

1. All outcome-based training efforts should be designed so that trainees are active participants during the training process - if training is not properly designed or delivered correctly the trainees observe the process but don't gain the full benefit that total involvement brings.
2. Trainee's interest is stimulated and training is more successful when outcome-based training is clearly understood and results of the training can be easily defined. This can be accomplished by using actual equipment, real work-place samples and by providing solutions that the trainee can use to accomplish the actual job requirements.
3. Well-designed and delivered outcome-based training exercises are useless unless the trainees are allowed and encouraged to put their training to use while performing the actual jobs.
4. Finally, the most important success factor with outcome-based training is that the learning environment must be supportive and positive. Trainees that

feel comfortable and not threatened will freely express their ideas and ask for help when they need it.

2.1.2 Characteristics of Outcome-Based Training

The new TVET system facilitate the emergence of modern teaching and learning methodologies, which are learner-centered and geared towards empowering trainees to assume responsibility for their own learning. The only benchmark stipulated by the TVET system will be the outcome, i.e. the desired competences defined in the occupational standards (MoE, 2008b).

Moreover, the strategy noted that 'the national TVET system, in line with many modern TVET systems worldwide, will be re-organized into outcome-based system, This means that identified competences needed in the labor market will become the final benchmark of teaching, training and learning, and that all institutions, rules and regulations of the TVET system will be (re-)defined so that they support citizens to become competent.

SPT Malan (2000) likewise, stated that the following are the main features of the outcome-based education approach:

- *It is needs-driven.* Curricula are designed in terms of the knowledge, skills and attitudes expected from graduates and aim to equip students for lifelong learning.
- *It is outcomes-driven.* It runs from taking cognizance of training needs to setting an aim (purpose) for the program, learning outcomes and finally assessing the learning outcomes in terms of the set learning objectives.
- *It has a design-down approach.* Linked to needs and the purpose of the program, learning content is only selected after the desired outcomes have been specified. Content becomes a vehicle to achieve the desired learning outcomes.
- *The focus shifts from teaching to learning.* It is a student-centered learning approach where lecturers act as facilitators. Study guides help the learners to organize their learning activities, and group work, continuous assessment and self-assessment are major features.

From the above points mentioned the followings are the aspects of OBT;

- 1) Focus is on outcomes,

- 2) The curriculum design process which starts from the exit level outcome downwards,
- 3) The responsibility of the institution and trainer/ teacher is to supply appropriate learning experiences for the success of all trainees.

Van Merriënboer, Van der Klink and Hendriks (2002) cited in Biemans et al (2004), carried out a study to determine whether it is possible to harmonise the concept of competence. After a literature study and expert consultation, they also concluded that many conceptions of competence exist, both in theory and in educational practice. Competence as a concept turned out to be (too) elastic. This raised the following question: what are the commonalities with respect to the concept of competence in various sectors and contexts? They derived six common characteristics of competences, as defined by relevant authors in the field:

- competences are context-bound;
- they are indivisible (knowledge, skills and attitudes are integrated);
- they are subject to change;
- they are connected to activities and tasks;
- competences require learning and development processes; and
- They are interrelated. Therefore, in their opinion, the concept of competence is valid, although the relationships with other concepts such as key qualifications and expertise can be quite strong.

Guthrie (2009) defines competence-based training as 'Training which develops the skills, knowledge and attitudes required to achieve competency standards.' Various in policy and in descriptive documents competence-based training is described as:

- a) based on competence standards
- b) outcomes and not input or process focused
- c) industry involved/led
- d) flexibly delivered, involving self-paced approaches where appropriate
- e) performance oriented
- f) assessed using criterion referenced rather than norm-referenced approaches, and it allows for the recognition of prior learning.

In addition to the above, Botha (2002) stated that outcomes-based education is a learner-centered approach where the emphasis is not on what the teacher wants to achieve, but rather

on what the learner should know, understand, demonstrate (do) and become. Teachers and learners focus on certain predetermined results or outcomes to be achieved by the end of each learning process. These outcomes are determined by relevant real-life needs, and ensure an integration of knowledge, competence, and orientations needed by learners to become thinking, competent and responsible future citizens.

As a result of the above statements, it is possible to infer the followings as the main features of OBT:

- 1) Learning outcomes (competences) are specified in measurable terms and published.
- 2) These outcomes are determined before the learning process begins, through the analysis of the occupation or the occupational area.
- 3) The mastery of these outcomes (competences) is the criterion of success of the learning process and a learner has to perform up to a pre-defined standard.

Therefore,

- a) OBT is outcome-oriented. It is what trainees can do and how well they can do it that matters.
- b) OBT materials clearly state what is expected of trainees in terms of performance, in given conditions, and to what standards.
- c) OBT is material-dependent as opposed to instructor dependent.
- d) Outcome-based assessment during and after training measures the performance of the trainee against a specified standard in a valid and reliable fashion. During OBT, trainees are provided with regular and immediate feedback.

In summation OBT is:

- A performance-oriented training system based on clearly defined tasks which comprise the job to be learned; and
- A systematic evaluation of competence as to how well the job is done.

2.2 Fixing Institutions' for Outcome-Based TVET

Previously, TVET deliver did not consider the competence requirements of the labor market as it should be in occupational standards, thus, it failed to appropriately address the ever-changing demands of the labor market. Building an outcome-based TVET system is therefore the centerpieces of the TVET reform that strives for enhanced quality and relevance of TVET. Therefore, effective, efficient and dedicate TVET providers capable of developing and delivering flexible, demand-driven, TVET programs are the central features of the new TVET system. Capacitating such providers is therefore a core task of the TVET authorities. To manage this successfully, the state TVET authorities should plan, coordinate, support and supervise the TVET provision in their respective Regions, secure funding for the public TVET institutions in the regions (MoE, 2008b).

In this connection the new Ethiopian TVET strategy stipulates that, with the introduction of occupational standards, new outcome based curricula need accordingly be developed by the respective regions. Each TVET provider may and should develop its own curricula based on the specific needs of its target groups and in compliance with the respective occupational standard. Regional TVET authorities shall see to it and assist that the new curricula have been employed in TVET institutes.

Therefore, TVET institutions are encouraged and empowered to develop close working relationships with employers and large, medium, small and micro sized companies in their catchment's areas. Facilities need improve to ensure that TVET provision meets the national OSs and TTLM are need to be sufficiently available.

2.3 The Need of Outcome-Based Training

Global experience has shown that the mere expansion of TVET does not solve the problems of unemployment and low productivity of the economy. TVET has to respond to the competence needs of labor market and create a competent, motivated and adaptable workforce capable of driving economic growth and development (MoE, 2008b). This means that TVET development relies on an outcome-based system.

In recruiting and selecting staff, no doubt you have some form of job and person specification from which to develop a profile of the sort of person you are looking for. For some employers, experience is a key issue; for others, qualifications are high on the priority list. Many job descriptions and most of ... vocational qualifications, as well as the education and training system, have not been based on specification or achievement of precise standards. As a result, industry has been disappointed in both the quality and actual performance of its recruited employees. However, if standards were based upon expectations of performance, set by industry, and linked to qualifications which could only be achieved through actual demonstration of the required performance, then quality of recruitment, selection and actual workplace activity should improve (Fletcher, 1994).

In this connection an effort has been made by Ethiopian Federal MoE to design and implement new TVET reform strategy in 2006. And due emphasis was given to outcome-based training system. This measure recognized the fact that while the country was in dire need of craftsperson and technician, traditional training programs lacked relevance to the work place reality. All efforts and resources were directed towards the massive quantitative expansion of the public TVET supply. As a consequence, the programs, by-and-large, do not address actual competence needs in the economy, with most programs of low quality and theory-driven due to resource constraints and lack of skilled TVET teachers. A systematic integration of TVET with the world of work has not yet been achieved. Most curricula used in formal TVET were not developed based on *occupational standards*. Thus the relevancy of outcome-based training system has no doubt in the context of the country.

2.4 Outcome-Based Training Assessment

2.4.1 The need of assessment

The ultimate purpose of assessment is to validate learning outcomes – be it for diagnostic, formative or summative purposes. The role of assessment in outcome-based education is part and parcel of the aims of assessment in all its root models. Outcome-based education, however, highlights continuous and criterion-referenced assessment (Malan, 2000). Due to

this reason, in outcome-based training and especially with training packages, the focus on outcomes rather than inputs has been reinforced and assessment has become a major issue for practitioners (Hellwig, 2006).

According to MoE (2008b), Output quality of TVET delivery will be measured through a process of learner's achieved competence. This is done through occupational assessment, which is based on the occupational standards. A candidate who has proven, through occupational assessment (which may be one assessment or a series of assessments), that s/he is competent will be awarded a National Occupational Certificate, which is the official proof of a person's competence in a TVET relevant occupational area. Occupational assessment, and hence certification, is open to everybody who has developed the required competence through any means of formal and non-formal TVET or informal learning. As a result, the outcome-based system is a major tool to accord equal importance to all forms of TVET delivery.

Moreover, the question 'Why apply for assessment?' was discussed in the document Information for Candidates (MoE, 2008d), as follows:

Assessment offers people a simple and cost effective way to gain national recognition for their competencies. By having their skills assessed, individuals are able to –

- identify work strengths and weaknesses
- establish training needs
- plan career pathways
- gain nationally recognized qualification
- skills are identified and officially documented

Employers may also find this service useful as it provides a straightforward way of identifying the competence of their employee/worker. As a worker, you are taking part in training or skills recognition that will lead to a nationally recognized qualification. However, to gain the qualification, you have to show that you have certain skills, knowledge and attitudes. In other words, you have to be assessed.

Candidates for competence-based awards must present evidence of competence to the assessors. Evidence of performance at work can only be assessed by immediate observation. Other evidence relies on simulation. In both cases, in order to guarantee future performance, the underlying knowledge must be tested, often by oral questioning. Much evidence will be documentary, consisting of records performance that are authenticated as having been produced by the candidate. The process of assessing competences is demanding and requires some guarantee that the assessors themselves have the necessary competence (Gasskov, 2000).

As SPT Malan (2000) noted that , ' Uncertainty about the desired learning outcomes and failure to assess outcomes properly could end in a situation where learners only attained pseudo-knowledge, pseudo-skills, pseudo-attitudes and pseudo-values. On completion of their studies these learners are awarded a certificate inherently implying that they have attained certain competences whereas in fact they have not'.

With this understanding, occupational assessment and subsequent certification is the main feature of the outcome-based TVET system to verify individual occupational competences. For all defined occupational qualifications at all levels, Occupational assessment and certification will be offered. Occupational qualification certificates will be awarded upon passing the occupational assessments (MoE, 2008b).

2.4.2 Criterion-referenced assessment

It can be argued that the most important element of a competence-based system of training is the final decision-making process. That, is the decision as to whether or not competence can be inferred from the performance evidence that has been collected. The decision to recognize a performance as satisfactory and infer competence is the basis for the success of the system. If these decisions are wrong, the system will almost certainly collapse. It follows therefore that the standards specified when describing the competence must be validly assessed. In other words it is necessary to decide what constitutes valid assessment (Thomson, 1991).

As SPT Malan (2000) illustrates that, 'Criterion-referenced instruction and assessment are well known and form an integral part of all types of performance-based assessment. Mpepo (1998) describes criterion-referenced instruction as a form of mastery learning. It is based on attaining specified objectives and on testing for competence in terms of the criterion stated in the objective. This form of instruction compares a learning outcome or mastery of competences with a predetermined external standard. Achieving the set standard signifies 'success', and failing to achieve the standard implies 'not yet up to standard', which is followed by remedial intervention.' Thus the decision to recognize a performance as satisfactory and to infer competence is the basis for the success of the system. Competence is based on matching the necessary level of knowledge with an appropriate performance.

So, how are competences assessed? Assessment is done by comparing student's performance to predetermined outcomes, not by comparing students with each other. Therefore a wide range of assessment techniques and methods must be applied. That's why the primary evidence of skill acquisition in competence-based training is in the actual demonstrated performance of skills to specified criteria. On the other hand, if assessment of competence is to be realistic, competent performance in a range of equipment, materials and contexts must be assessed. This is where the range statement serves to 'set the scene' for assessment. Traditional testing and exams alone are rarely adapted. This is because the skill "coping with an exam/test situation" gives the results a considerable bias. The modes of assessment for the same standard need not always be the same, provided they produce valid evidence that the same standards have been achieved (Fletcher, 1994).

As per the above statements, one question often asked is "If competence-based standards focus on performance, what about the knowledge that people need to do their job competently?" A basic concept underlying the development of competence-based standards is that application of knowledge is an integrated part of competent performance. This means two things:

- It is application of knowledge and not knowledge itself that is important to competent performance
- Application of knowledge can be assessed through assessment of competence performance (Fletcher, 1994)

The question, 'what are competency standards?' Has discussed in the document Information for Candidates (MoE, 2008d), as follows:

Competence standards are statements that describe what your industry accepts as effective performance in the workplace. This includes the skills, knowledge and attitudes you need to do a job. These standards are stated into unit of competence. These units of competence match particular activities that people carry out at work, like operating a bulldozer, processing insurance claims or assembling table furniture. Your job is made up of these units of competence. Each unit of competency is broken down into smaller parts called *elements* and *performance criteria*. Units of competence are what the accredited assessor will use to judge whether or not you are competent. Accordingly, assessment of competency takes into accounts the participant's knowledge, skills, and attitudes. Assessment of individuals entails gathering evidence and making decisions about the outcomes of learning or competence. Assessment focuses on all aspects of the competence-task skill, management of skills, transfer skills, employability skills, and etc- and requires actual performance of the competency as the primary source of evidence; that is; the individual has to demonstrate the required knowledge, skills and attitude necessary for the job. Methods of assessment include practical demonstrations, role-play, and oral and written questioning, work place simulation, case studies, direct and indirect observation, log and supervisor's reports. Thus, a wide range of assessment instruments are applied in the appropriate setting, ensuring that all competencies are assessed.

In this connection, Hellwig (2006) likewise, stated that, 'Competence-based assessment requires not only continuous, on-demand assessment, but also the assessment of practical skills in the workplace. Difficulties with competence-based assessment are expressed mainly concerning the required amount of time and effort. Owing to time constraints, competency-based assessment can sometimes be reduced to a checklist approach, where competencies are ticked off without valid, reliable and objective evidence. But if the learner fails in a real workplace situation, although he/she has been formally declared as competent, the credibility of both the institution and the teachers is being put at risk. Thus, the other extreme can easily occur, namely, that competencies are over-assessed to make sure the learner is competent.'

According to MoE (2008b), the statement of OBT assessment read as follows: Occupational assessment and certification will be accessible to all candidates who feel competent that they meet the requirements of the respective occupational standard, irrespective of how and where they were trained or learned. Hence, occupational assessment will be the major tool to integrate different TVET delivery modes and recognize prior learning, significantly increasing access to the TVET system and its qualifications for a greater section of the society. For those who successfully, pass occupational assessment, a National Occupational Qualification Certificate will be issued by the state TVET authorities upon delegation and on behalf of the Federal TVET Agency.

2.5 Major Factors Affecting Outcome-Based Training Implementation

Quality training programs cannot be delivered without sound technical support. Major technical support functions include:

- a) development of skill standards and national qualifications;
- b) curriculum and teaching materials development;
- c) assessment (testing) of skills and certification;
- d) instructor/teacher development;
- e) vocational guidance; and
- f) research and development on vocational education and training

A national vocational training system missing any of these important functions will lack consistency and quality (Gasskov, 2000).

According to Hellwig (2006), general difficulties in the implementation of outcome-based learning processes are expressed in various respects. The main challenge from the perspective of most teachers is the understanding and translation of training packages into deliverable teaching and learning resources. This requires both technical expertise in the occupational field and also didactic knowledge, since training packages are often perceived as "wordy documents". The successful implementation of training packages seems to rely

heavily on the quality of these resources. Another difficulty in the realization of training packages is the decision about which elements of competence could be combined in order to deliver and assess more holistically. A more holistic approach is generally perceived to be necessary because it gives the learner a broader understanding of processes and interrelations of tasks. Additionally, generic or employability skills as demanded by employers should be included as well.

Furthermore, Battistini (1995) discussed that outcome-based education must involve administrators, educators, parents and students; ultimately it is the classroom teacher who is the key to the success of the program. The most basic premise of outcome-based education states that all students are capable of learning and can achieve high levels of competence when teachers delineate their expectations. When this is done, students feel they are participants in classroom decisions and tend to be more supportive of all aspects of the class. Thus, one of the main objectives of OBT is met as students and staff both takes responsibility for successful learning outcomes.

In this connection, Botha (2002) stated that, 'Learners will have to take greater responsibility for their learning. Teachers will have to take full responsibility for careful planning and management of their learners' learning environment. Parents will have to be more involved in motivating and facilitating their children to learn'.

To manage this successfully, in the meantime, considering the weak state of development of TVET institutions in Ethiopia, the TVET system will ensure that all necessary support is given to TVET providers to develop appropriate curricula and develop capacities for high quality TVET delivery. This may be facilitated through developing curriculum development guides, model curricula or the like to serve as orientation and assistance to TVET providers (MoE, 2008b). Therefore, TVET provision will have to strike a balance between quality and sustainability of the existing TVET in order to make the training program more effective and the training environment more conducive.

Moreover, MoE (2008b) stated that, another important measure was to conceptualize and start implementing a new quality management system within the TVET sector. Inline with

international best practices ,it was decided to move towards an occupational standard-based TVET system to replace the current curriculum-centered approach and to establish an occupational assessment system open to graduates and candidates from all formal, non-formal or informal TVET schemes. The system of occupational standards together with standard-based assessment and certification has to be considered the centerpiece of TVET reform towards relevance, demand-orientation and accessibility. It requires further conceptualization and accelerated implementation.

Besides the above, other researchers also say the following about factors affecting competence-based training implementation, In addition to the endorsed components of Training Packages there may be a range of materials such trainer instructions, guides for learners and multimedia toolboxes to support their implementation and use. The learning and assessment strategies, the 'how' of training, are developed by providers and their teachers and trainers based on learner needs, abilities and circumstances. These, too, take time to develop, implement and refine (and are not without resource and financial cost at provider level as well) (Guthrie, 2009).

With regard to teaching materials, Middleton (1993) noted that, inadequate supply of equipment, lack of workshops; out-dated equipment will make effective teaching impossible. Boldly, in an OBT system, appropriate teaching materials are essential as per to each unit of competence to enable trainee in achieving predetermined standard.

This shows that OBT requires the allocation of adequate and quality resources, learners and teachers responsibility regarding to training in addition to the introduction of the system of occupational standards, assessment and certification. From the above points mentioned, if one of them is diluted it is a sensor of factor that affects OBT implementation. To this end, considering all necessary efforts of OBT will scale up to better performance within training providers.

2.6 The Role of Trainers in the Execution of Outcome-Based Training

2.6.1 The Role of Trainers in Outcome-Based Training approach

Highly competent, qualified, motivated, flexible and creative TVET teachers and instructors are the backbone of any TVET system, capable of adjusting to changing technological environments and creating conducive learning environments for different target groups. To this end, the government of Ethiopia is in the process of fundamentally overhauling the system and provision of TVET teacher/instructor trainings. The aim of this process is to create a corps of TVET teachers/instructors capable of preparing trainees to successfully pass occupational assessment. Systematic training, education and further training will be provided for teachers and instructors in the TVET system at all levels in the formal programs (MoE, 2008b).

Claassen (1998) cited in SPT Malan (2000), stated that: outcome-based education is a transformational perspective on the curriculum. It offers a dialogue between learner and the curriculum where the learner interacts with sources of knowledge, reconstructs knowledge, and takes responsibility for his or her own learning outcomes. In the same way the teacher becomes a facilitator in the teaching and learning situation instead of acting as a source of information transferring content to learners. Therefore, training packages do not prescribe how an individual should be trained. Trainers develop learning and assessment strategies – the 'how' – to support an individual learners' needs, abilities and circumstances (Guthrie, 2009).

With the above analysis and understanding of trainer's/teacher's role, researchers pointed out that the extent to which the role of teachers' changes can easily be overlooked when competence-based education is implemented. The teacher is supposed to switch from the role of an expert, transferring knowledge to a coaching role, guiding students' learning processes. Students are supposed to take responsibility for their own learning, whereas the teacher used

to be in charge. This requires a totally different attitude from both parties, perhaps even a paradigm shift. (Biemans et al, 2004).

To this end, Justification and clarification of outcome-based approach to training trainers play a critical role in the successful implementation of outcome-based approaches. In OBT, trainers are viewed as one, although essential, resource to be used. This may represent a shift in perspective for this group of stakeholders. It is important to gain their support of an outcome-based approach. This can be facilitated through information on the principles driving OBT and clarification of the trainers' role. Guidance material should assist states in disseminating information concerning OBT and support the implementation of staff development programs. As trainer members have gained experience in the implementation of outcome-based training, they can provide valuable insights into this process. Therefore the instructor still plays a critical role in demonstrating skills, but is assisted by other resources (media...) and strategies (peer instruction...) direct, close supervision providing immediate coaching and feedback would be a primary instructional strategy of OBT programs.

Thomson (1991) likewise, stated that, a consideration of the roles of workplace trainers gives an example of how the increasing complexity of skills, standards and conditions operates in practice. As well as processing a thorough knowledge of the subject for which he or she is providing training, a competent trainer possesses a mix of skills such as;

- the ability to deal with the training requirements of a range of individuals;
- the ability to solve problems;
- a thorough knowledge of the training process.

Because different training functions require different mixes of these skills there are important ramifications for setting standards and assessing the attainment of standards.

2.6.2 Constraints Facing the Trainers in Outcome-Based Training

The application of competence-based training to the delivery and assessments of training in VET were analyzed. The study focuses on the perceptions of trainers and teachers revealed that teaching has changed with competence-based training, mainly in the following aspects.

First, the delivery has become more industry-focused, since the competence standards comprise workplace requirements and therefore are more practical. Teachers state that the amount of theory has been reduced to a greater and lesser extent depending on the industry, but generally the focus is now set on practice. Practitioners state that they experience tension between being under pressure of time to assess large numbers of learners individually and generating a highly skilled workforce. Employers rely on employees who are not only declared competent, but are able to do all required tasks successfully. According to experts in the area of professional development, this dilemma can only be solved by preparing practitioners explicitly for competence-based assessment (Hellwig, 2006).

In this connection Mitchell et al (2006) note that, many VET practitioners' still need skills in implementing Training Packages, as well as being able to support workplace learning and take advantage of new learning technologies. The new demand driven and outcomes oriented VET system requires a 'new' professional who is better able to meet the expectations of industry clients and individual learners. As to Lorriman (1996), many graduates go on to industry, and a high proportion, after some years of industrial experience, and then become instructors.

In line to this, the introduction of the new competence-based TVET systems will have considerable resources implications on educational institutions. One of the most important of these is the ability for teaching staff to deliver the new curricula aligned to industry set occupational standards and the senior staff to verify and manage them. Therefore, there must be an adequate trained TVET teachers and instructors to effectively deliver proper competence-based training and assessments. A primary element of an effective training system is a competent teaching and training personnel. TVET teachers/trainers need to be both technically and pedagogically competent.

In order to get an appropriate TVET teachers, emphasis will be placed upon developing systematic further education and training schemes to continuously upgrade the competences of existing TVET teachers/instructors and to facilitate life-long learning and qualification. Further training will address the entire range of necessary competences, including practical

skills, occupational theory and technology, as well as pedagogical, didactical and methodological competences (MoE, 2008b).

2.6.3 Explicit Problems and Challenges of Trainers in Outcome-Based Training

The quality of TVET teacher/ instructors in Ethiopia has suffered as result of the low reputation of their profession. Most TVET teachers/instructors have relatively low formal qualifications, severely affecting TVET delivery at higher qualification levels .Furthermore, technical teachers, more often than not, have been unmotivated. They did not choose to become technical teachers, but were placed in technical teacher colleges because there were no other options available to them. Finally, existing TVET teachers/instructors are (mostly) inappropriately practically skilled i.e. not competent to provide TVET in accordance with the occupational standards. This is a result of a training system that long emphasized theoretical knowledge (though often not aligned with modern technology requirements), disregarding the importance of practical skills and appreciation of the world of work (MoE, 2008b). Therefore, teachers need updated education and are usually open to new ideas and will implement them if they feel significant support from administration and other staff members (Battistini, 1995).

As Fletcher (1994) noted that: experience with a wide range of trainers indicates that the key difficulty they experience in the design of competence-based training is the switch in thinking required to think in outcome terms. Any trainer experienced in the design of training programs automatically thinks in terms of training objectives and content. Competence-based training still has objectives and still has a clear content. The essential difference is that explicit, outcome-based standards are used as the basis of design. Once trainers have grasped the concepts involved, the actual task of design is far less daunting. As with all competence-based activities, the design starts with standards. The trainer should review the standards relevant to the work role of the target audience and ask the following questions:

1. What do trainees actually have to do?
2. What underpinning knowledge and skill do they need?
3. What training activities would best suit

- 3.1 The target audience?
- 3.2 The contribution of training to achievement of standards?
- 3.3 The constraints of time, cost, location?

Training packages allow for more flexible delivery and self paced learning. Most teachers appreciate the flexibility they have in the design of learning processes and in applying different methods according to their learners. According to the practitioners, self-paced learning is now being frequently used in most learning processes. However, the amount of self-paced learning varies depending on the institution, the equipment, facilities and the availability of learning material that allows for self-pacing (Hellwig, 2006). As a result of these variations trainers face a challenge in providing OBT.

Moreover, trainers should be assisted in making decisions about whether a person is competent. Trainers see difficulty in competence-based assessment that a learner is deemed either 'competent' or 'not yet competent', and that there is no distinction between the performances of the learners. Competence-based assessment provides information only on whether a person is able to do certain tasks, but it does not make transparent how well the performance is undertaken. Teachers' experience is that, without such distinction, learners are often not motivated to do more than what is necessary, since they do not get credit for it (Hellwig, 2006).

2.7 Conditions for Effective Execution of Outcome-Based Training

Fully committing to outcome-based education requires change in nearly every aspect of an existing educational program. Before implementing an outcome-based education system, educators must weigh objections as well as commendations of outcome-based education and determine in advance how to address challenges (McNeir, 1993). Competence-based education is built on the philosophy that "almost all learners can learn equally well if they receive the kind of instructions they need." Learning outcomes are derived from standards which are defined by industry which is used to guide the development of curriculum materials and instructional design based on the needs of the workplace or institution. This

facilitates the competence-based training and assessment throughout the TVET system, as the approach seeks to systematically identify and develop essential worker competences, or the knowledge, skills and attitude required for a particular job.

Building training systems requires time and sustained support. Indeed, World Bank experiences shows that a decline or more is necessary to establish effective training organizations. But the effort must be forthcoming if the skills required to support economic growth in the modern sector are to be available (Middleton, 1993). Because of the point mentioned above, machines, tools, equipment, material used: the description of each of these items and arrangements of workshops are often important for an adequate picture of the competence-based training.

However, concerning application, the competence-based approach has been implemented broadly and the views on it are quite positive. The majority of practitioners claim competence-based training to be working for them and they appreciate the flexibility they have. In spite of this, the degree of successful implementation of competence-based training depends, on the one hand on the facilities and equipment at the institution, and on the other on the learning materials that are provided (Hellwig, 2006).

According to Killen (1996) cited in Botha (2002), one of the attractions of the OBT approach is that it provides administrators with some level of control over the outcomes of education and, at the same time, provides teachers with a large degree of freedom to select content and methods through which they will have their learners achieve those outcomes. In order to implement OBT meaningfully, a balance needs to be achieved between these two aspects.

The immediate way forwarded for OBT curriculum to continue with implementation, shift the attention from outcomes to learner-centered education, focusing on knowledge of learners, methods of teaching and classroom management, plus the training of teachers to implement the new curriculum (Botha, 2002).

Furthermore, Botha (2002) noted that, to make outcome-based education successful, schools need to be substantially reorganized. Consequently, the role of the parent in education will also have to be adjusted. The successful implementation of outcome-based education depends on informed and motivated communities. For this reason, teachers, parents and educational managers should be familiarized with all facets of this approach.

As Streshly and Bernd (1992) cited in McNeir (1993) likewise, noted that 'a unified and sustained vision by school leaders over time is necessary for genuine growth to occur. Just as educators must allow time for careful planning and implementation, they must cultivate the patience and commitment to allow their efforts to evolve into lasting change'.

According to MoE (2008b), in the outcome-based TVET system, the goal of TVET providers is to create the necessary skills, knowledge and attitudes of trainees, so that they are able to perform according to occupational standards, and hence receive certification. Thus TVET providers have to develop curricula that are based on the National Occupational standards and are appropriate to the relevant learning process. Though, Modular TVET organization is a fairly new concept in the Ethiopian TVET environment. TVET providers need new skills to develop modularized curricula, and management skills for TVET institution managers to re-organize their training plans accordingly. The TVET executive bodies will therefore render necessary support to TVET institutes by developing curriculum guides, further training technical teachers and capacity building in the organization of modular training.

However, the TVET strategy (MoE, 2008b), is acknowledged, that many of the existing TVET providers are not yet in a position to develop high quality curricula and TVET programs on their own. Substantial capacity building and support (provided by the TVET system) will be necessary to enable TVET providers to transform the occupational standards into appropriate modular and outcome-based curricula. The same applies to the development of new training, teaching and learning materials. To capacitate TVET providers and to ensure that TVET programmers, curricula as well as training, teaching and learning materials are of high standards, respective manuals will be provided and the development of model curricula and of related teaching, training and learning materials be supported.

As a reform, outcome-based education promised to improve the quality of education (i.e. to guarantee success for all; to develop ownership by means of decentralized curriculum development; to empower learners in a learner-centered ethos; and to make schools more accountable and responsible in trying to ensure success and effectiveness) (Botha, 2002). Therefore, in order to make an OBT program effective and the training environment more conducive the necessary conditions need to be fulfilled as per requirements of trainings to maintain the learning outcomes.

2.8 Manageability of Competence-Based Training

In developing competence-based education, it is essential that structural attention is paid to competence development of teachers and school managers. "Practice what you preach" should be the leading principle. According to Mulder (2004), competence-based management implies an open culture and co-operation. If these conditions are not met, competence-based management will be a failure. Management itself has to "walk the talk"; otherwise people at lower levels in schools will perceive it as an ordinary management tool, instead of appreciating it as a supporting strategy to develop both the school organisation and the individual.

To manage this successfully, TVET systems must pave ways for manageability of OBT approach. In this regard TVET programs will be organized in a modular fashion to meet the requirements as defined in the occupational standards. In this way, each module or combination of modules describes an employable set of competences. Successful completion of each training module shall be dependent on assessment and certification in conjunction with the assessment specifications stipulated in the occupational standards. The modularization of TVET is a central mechanism of making TVET delivery flexible and providing for flexible entry and exit points (MoE, 2008b).

In the same way, Biemans et al (2004), noted that, 'designing competence-based curricula, learning processes and assessment procedures can only be done fruitfully, when competence is operational as unambiguously as possible'. Therefore, it is necessary to understand the

underlying learning processes. On the other hand, it is important to avoid competence jargon while actually designing and implementing competence-based education and to choose a more practical approach (Mulder, 2004).

To this end, Gasskov (2002) endorsed that, delegation of management power can be accompanied by the delegation of technical functions such as curriculum development and, sometimes, testing of graduates. As long as the national skill standards are well established and trainees' knowledge and skills are rigorously assessed, curricula can be developed by schools themselves, provided that instructors are qualified. In some countries, the development of curricula by college instructors has become a tradition.

A key component of OBT approach is expanded opportunity and instructional support. Students are given more time if needed to master material, and they are offered second chances or given a grade of Incomplete until they succeed. Teachers use "coaching" as well as grouping and team teaching to provide additional assistance (McNeir, 1993).

With the acquisition of broader management responsibilities at institutional level, public TVET institutions will be required to form a management board comprising all relevant local stakeholders, including representatives of the local business community. The management boards will be responsible for school supervision and will approve plans, budgets and reports of the same. Strengthening cost-effective modes of TVET delivery is another important means of improving efficiency in the TVET system. Accordingly, cooperative TVET schemes will be promoted and TVET institutions will be encouraged to develop flexible and better solutions for cost-effective TVET delivery (MoE, 2008b).

Moreover, the TVET strategy (MoE, 2008b), stated that, apart from building the competence of TVET teachers/instructors, sufficient resources and efforts will be invested into human resource development activities among TVET administrative and management staff. This includes those stakeholders involved as council and board members at different levels in the governance of TVET too. Tailor-made training and/or awareness creation programs will be drawn up.

2.9 Experiences of Other Countries on Competence-Based Training

2.9.1 Occupational Standards and Support Materials in Australia

Australia has introduced a TVET system based on occupational standards. Standards are defined in so-called training packages. Training packages are sets of nationally endorsed standards and qualifications for recognizing and assessing people's skills.

In order to assist training providers, training package support materials are developed. Training package Support Materials are resources to help learners, trainers, assessors and employers implement training and assessment based on the competency standards, assessment guidelines and qualifications from a Training Package. Support materials are optional approaches and are not mandated. The materials may include assessor's resources, learner and/or trainer resources, professional development materials, promotional material and Training Package guides designed to inform Registered Training Organizations (RTOs) and employers in the use of Training Packages. Implementation guides are progressively being developed for each Training Package. Training Packages specify the combination of competency standards required to achieve a particular qualification. Learners who complete some, but not all, standards for a qualification are awarded a statement of attainment. When they are assessed as competent the remaining standards, they get the qualification (MoE, 2006a).

2.9.2 Some Trends in Africa

South Africa, Zambia, and Tanzania among others, have introduced competence-based training. Implementation is complex and must include the development of standards based on job analysis, the preparation of new modular curricula, and the design of assessment methods and new performance tests. The value of competence-based training is that it focuses on the skills needed for performance in a job, and it places pressure on instructors and center management to deliver these skills. It can lead to a reduction in training duration as well as

greater flexibility (Johanson and Adams, 2004). One of the lessons of implementation from Tanzania is the need to involve employers in the process and to publicize the concepts widely so that they are understood by enterprises, parents, and trainees.

Zambia has established regulatory authority named Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA). TEVETA was established through legislation of parliament as an autonomous organization governed by an independent Board, and the organization is responsible for providing regulation, support and facilitation services to all training providers. A significant factor of success for TEVETA has been the autonomy of the Board to preside over the affairs of the authority with reduced government interference. The Authority is not involved directly in training delivery and does not "own" training institutions. In this way, the Authority can act as an independent regulatory and apply the same judgments to all training providers without reference to the status or nature of the owner.

TEVETA has learnt that it is important to create partnerships between public and non-public training institutions. It has also been found beneficial to create structures for periodic dialogue and exchange of experiences between different training providers. Direct support to technical and vocational training institutions helps to build their internal capacities and capabilities to manage and improve their training delivery systems.

From the above on going discussions of practices, there are a number of lessons of OBT implementation from Zambia, among which are the following:

- The need of an independent regulatory authority organization for providing regulation, support and facilitation services to all training providers (public and non-public) and apply the same judgments to all training providers without reference to the status or nature of the owner to maintain the quality of training.
- The significance of creating partnerships between public and non-public training institutions to create structures for periodic dialogue and exchange of experiences on outcome-based training delivery system.

CHAPTER THREE

Research Design and Methodology

3.1 Research Method

The main objective of this study was to examine the practices and problems of OBT implementation. Therefore, descriptive survey method was employed. The reason why the student researcher selected the descriptive survey method is that, according to Best and Kahn (1998), descriptive survey research helps to describe and interpret the actual events that exist now and existed in the past and that have influences on the present, and also thereby it tries to make the necessary recommendations for adjustment. Moreover, the method was particularly important for the study since it was intended to make detailed description and analysis of the strategies and practices that can influence OBT in TVET programs.

3.2 Data Sources

The data for the study were obtained from primary and secondary sources. In order to get first hand information, primary data were collected from respondents: Trainees, Trainers, Deans, and from the Training Process Owners. Regarding the secondary information sources, the available, accurate and relevant literatures were consulted to obtain necessary information about the problems under study, and legal documents were reviewed. Moreover, to acquire full information various reports and documents in TVET institutions were reviewed to obtain pertinent data.

3.3 Sample size and Sampling Techniques

In Arsi Zone there were six TVET institutions. Out of these training institutions, two of them (33.3%) were selected for the study using stratified sampling technique. This includes: Athlete Kenenisa Bekele TVET College and Asella TVET institute. In these institutions there

were 25 occupational areas of training. Among these 10 (40%) streams (Accounting, Purchasing, Hotel Management, Secretarial Science & Office Administration, Information Communication Technology, Automotive, Electricity/Electronics, Metal Manufacturing, Construction, and Textile & Garment) were included on the basis of purposive sampling. Purposive sampling technique was employed to incorporate Deans/Directors and Training Process Owners. The total number of trainers in these institutions was 160. Of these 50 [14 from Asella TVET institute and 36 from Athlete Kenenisa Bekele TVET College] were included on the basis of quota sampling to set proportionate to size. The other groups of respondents were trainees of the 2007-2009 academic years. The total numbers of trainees in the 10 streams were 993. Of these 200(20.2%) were taken as sample population. According to Leedeey and Ellis (1989), to secure proportional representatives of the sampled institutions, proportional stratified sampling is appropriate. Because the population strata appeared in different proportions (see Table 1). To pick up the number of respondents under each stratum, random sampling was used.

Table 1: *Description of Population of Trainees and Trainers by Field of Training*

No	Name of TVET Institutions	Field of training	Number of trainees	Sampled trainees(20.2 % from each field of training)	Number of trainers	Sampled trainers(31 % from each field of training)
1	Athletes Kenenisa Bekele TVET College	Automotive	113	23	101	31
		Electric/Electronics	148	30		
		Metal Manufacturing Fabrication	99	20		
		Construction	99	20		
		Textile & Garment	49	10		
2	Asella TVET Institution	Accounting	140	28	60	19
		Purchasing	95	19		
		Hotel Management	60	12		
		Administrative Office Secretarial technology	70	14		
		Information Technology	120	24		
Total	2	10	993	200	161	50

3.4 Data Collection Instruments and Procedures

3.4.1 Instruments for Data Collection

To secure reliable and adequate information, selection of appropriate data collection instrument is essential. Therefore, the student researcher employed four complementary techniques of data collection. Questionnaire, interview, observation and document analysis were used to acquire relevant data for the study. Questionnaires were used because of their appropriateness to gather relevant information, opinions, and attitudes from large number of

respondents with in a short period of time. More over, it gives freedom for respondents to give their responses with out any fear about their responses.

Depending on the types of questionnaire items, close-ended and rating scales were used in the questionnaires. The student researcher used the questionnaire to collect information from trainers and trainees. Besides this, structured interview was employed to acquire qualitative data on various components of the training program to complement and obtain relevant data which were not handled by the questionnaire. Thus, interviewees included in this study were Deans, Directors, Training Process Owners, and experts from the regional TVET Agency.

Observation technique was complementary means used during the research to collect data on facilities, training process, and workshop condition in general. A check list was developed and observation results were recorded on the stated places.

Different documents of published and unpublished were reviewed to obtain background information on Competence-Based Training in order to increase the reliability of the information. Available reports were analyzed.

3.4.2 Procedures of Data Collection

The study incorporates different stages. At the initial stage of the study, a review of literature was made to develop theoretical background and instrument of data collection. In this regard, books, journals and documents were reviewed to collect pertinent information. Both closed-ended and open-ended types of questionnaires were prepared in Amharic for trainees and English languages for trainers. By this, the student researcher assumed to over come the possible misunderstanding and misinterpretations because of language on the parts of the respondents. Pilot test was used to check the appropriateness of the instruments. After improving the questionnaire on the basis of the feed back from the pilot test, it was administered to the respondents on face-to-face with the necessary explanations on how to complete it. Interviews and observations were also took place, concurrently.

3.5 Pilot Test

A pilot test was conducted before the distribution of the questionnaire to the sample population of the study. Because pilot testing deemed very essential to make necessary correction and to evaluate whether the questionnaires were appropriate to generate adequate information and to make the necessary modification. Thus, the draft instruments were tried out in small scale study to test and improve the instruments at Adama TVET College (not included in sampled institutions). It is located in Oromia Region East Shoa Zone.

The test was conducted by using 15 trainees and 5 trainers. The piloting helped the student researcher to identify ambiguities, misunderstandings and spelling errors. To this end, some modifications were made. Three questions that were found not to bring any reliable information to the study were rejected. Moreover, item rearrangement was done. Finally, improved questionnaires were administered.

3.6 Methods of Data Analysis

The data analysis process involved content analysis of documents; responses to both close- and open-ended questions and interviews. The raw data collected from the field was organized and systematically framed with tables according to the similarities of issues that were raised in the questionnaire. The data analysis and interpretation was carried out by using statistical measurements namely: percentage, weighted mean and chi-square. Finally, based on the data analysis, interpretations were made to reach to certain conclusions. As a final point, on the basis of the conclusions made, possible solutions were recommended.

CHAPTER FOUR

Presentation, Analysis and Interpretation of data

This chapter deals with the Presentation, Interpretation and Analysis of data collected from the sample TVET institutions' trainers, trainees, deans/directors, and training team process owners. The data obtained through questionnaires, interviews, observations and document analysis were analyzed and interpreted in view of the basic questions in chapter one. In this regard, out of a total population a sample of respondents were involved in filling out the questionnaires. These were 200 trainees and 50 trainers from the sampled TVET institutions.

Accordingly, out of the 200 and 50 questionnaires distributed to trainees and trainers respectively, in the institutions, 178 (89%) and 44 (88%) were filled in and returned from trainees and trainers, respectively. A total of 28(22 trainees and 6 trainers) questionnaires were not returned. Based on the responses obtained from each group of the respondents, the analysis and interpretation on the data are presented in the subsequent sections.

4.1 Background Interpretation of Respondents

This section is concerned with the description of the background characteristics of the target population. The main sources of information were the trainees and trainers in the sampled institutions (see Table 2).

Table 2: Respondents by Sex, Age and Trainers' Qualification

No.	Items	Alternatives	Responses			
			Trainees		Trainers	
			No	%	No	%
1	Sex	Male	125	70.2	39	88.6
		Female	53	29.8	5	11.4
		Total	178	100	44	100
2	Age	20 and below	115	64.6		
		21-25	59	33.1	17	38.6
		26-30	4	2.3	7	15.9
		31-35	-	-	1	2.3
		36-40	-	-	9	20.5
		41 and above	-	-	10	22.7
		Total	178	100	44	100
3	Qualification	Diploma	-	-	18	40.9
		First Degree	-	-	26	59.1
		MA/MSc	-	-	-	-
		Ph. D	-	-	-	-
		other	-	-	-	-
		Total	-	-	44	100

Table 2, presents the description of trainees and trainers by sex, age, and trainers' qualification. As can be observed on item 1 of Table 2, 125(70.2%) of trainees are male and 53(29.8%) are female. Regarding trainers, 39(88.6) are male and 5(11.4%) are female. This indicates that the majority of respondents were male. However, the data from both groups represents the views of both male and female trainees and trainers.

As can be seen on item 2 of the same Table, 115(64.6%) trainees are aged 20 and below. Those with ages range from 21-25 years were 59(33.1%) of trainees' and 4(2.3%) of them were above 26 years of age. Thus most of trainee respondents seem to be within the appropriate age for TVET training. Concerning the age compositions of the trainers, about 20(45.5%) of the trainers were above 31 years of age. Whereas 17(38.6%) and 7(15.9%) were in the ages of 21-25 and 26-30, respectively. Hence, this shows that the majority of the trainers seem to be relatively young.

Item 3 of Table 2, shows that 18(40.9%) of the trainers respondents were Diploma holders. On the other hand, 26(59.1%) were First Degree holders. Although the majority of trainers have First Degree, the TVET strategy (2008) suggests that all trainers at this level ought to have a minimum of First Degree.

In connection to this, the interview conducted with the college/institute deans, directors and training process owners also indicated that, the degree of competence and fitness of the trainers in the training institutions was low.

4.2 Analysis and Interpretation of the Data

This section of the chapter treats the presentation, analysis, and interpretation of the data, which are pertinent to the study.

4.2.1 Orientations Related to Outcome-Based Training

Table 3: Respondent Trainees and Trainers Views Regarding OB T

No	Items	Respondents			
		Trainees		Trainers	
		N	%	N	%
1	Did you get any orientations /information on outcome-based training?				
	A/ Yes	101	56.7	38	86.4
	B/ No	77	43.3	6	13.6
	Total	178	100	44	100
2	If your response to question 1 is "Yes", the contributions of orientations/information to understand the basic concept of outcome-based learning/training were:				
	A/ High	52	51.5	3	7.9
	B/ Moderate	44	43.6	28	73.7
	C/ Low	5	4.9	7	18.4
	Total	101	100	38	100
3	Do trainees know about the unit of competences before you started occupational training?				
	A/ Yes	86	48.3	29	65.9
	B/ No	74	41.6	15	34.1
	C/ Uncertain	18	10.1	-	-
	Total	178	100	44	100

According to Table 3, item 1, respondents were asked to rate whether the trainees and trainers get orientations/information about OBT. Consequently, quite a large number of trainees, 101(56.7%) and 38(86.4%) of trainers reported that they got orientations/information about OBT. In contrast, 77(43.3%) of trainees and 6(13.6%) of trainers didn't get.

Moreover, those respondents who have taken orientations/information about OBT were also asked to indicate the extent of contribution to their understanding the basic concepts of outcome-based training/learning. To this end, as shown on item 2 of the same Table, 96(95.1%) of trainee respondents reported that the contribution is high and moderate, similarly, 31(81.6%) of trainer respondents reported in the same way. However, there were trainees 5 (4.9%) and trainers 7 (18.4%) who reported orientations/information given to them have low contribution to understand the basic concepts of OBT. Besides, many trainees in their responses to open-ended questions forwarded that adequate orientations/information was not given on OBT. This indicates that orientations/information they were given was moderate to them. However, there is more to be made in giving orientations/information for better insight of OBT.

Item 3 of Table 3, indicates that the majority of the trainees, 92(51.7%) responded that they didn't know about unit of competences of occupational training before they started the training. Regarding to trainers, 29(65.9%) replied that trainees know the unit of competences of occupational training before actual training started. As it can be seen, there is a difference between the two respondents in their responses. However, the trainees' response ought to be considered, because trainee's interest is stimulated and training is more successful when outcome-based training facets is clearly understood and results of the training can be easily defined Gasko (2004).

In general, as illustrated in Table 3, both respondents' responses can be said that there was inadequate orientations/information on OBT, especially on competences of occupational training in the sampled institution. In relation to the TVET strategy (MoE, 2008b), awareness creation programs have to be drawn up.

Table 4: Respondents' Understanding of OBT

No	Items	Respondents			
		Trainees		Trainers	
		N	%	N	%
1	How do you understand outcome-based learning?				
	A/ Learning is modular, where an emphasis is on what the learner should be able to do.	56	22	20	24.4
	B/ It is an assessment oriented against predefined performance at the end of each training modules	77	30.2	19	23.2
	C/ Learners have to take greater responsibility for their learning	110	43.1	29	35.4
	D/ The teacher becomes a facilitator in the training situation instead of acting as a source of information	-	-	14	17.1
	E/ I don't have awareness on outcome-based learning	12	4.7	-	-
	*Total	*255	100	*82	100
2	In what ways do you think outcome-based learning differs from the traditional learning?				
	A/ Trainees compete with the predefined performance not with each other	28	15.4	19	24.7
	B/ The focus is on the achievement of competences, not the time spent on training	20	11	28	36.4
	C/ A performance-oriented training system based on clearly defined tasks which comprise the job to be learned	-	-	30	38.9
	D/ A and B	134	73.6	-	-
	*Total	*182	100	*77	100

*Note: Total * exceeds the number of respondents, because they were allowed to give more than one answer in each case.*

As the data presented in Table 4, item 1, conveyed 'how well respondents understand OBT'. Consequently, of the trainees, 110(43.1%), 77(30.2%) and 56(22%) reported that in their order of perception. Thus, outcome-based learning is learning where learners have to take greater responsibility for their learning, an assessment oriented against predefined performances at the end of each training modules and learning is modular, where an emphasis is on what the learner should be able to do are the features of OBT, respectively. Others, trainee respondents 12(4.7%) reported that they don't have awareness on OBT. In general, trainees information on any program and responsibilities, enhance their learning. Therefore, it is indispensable to confirm by TVET providers that all trainees have the necessary information of the training.

In connection to this, Botha (2002) once, stated that, 'Learners will have to take greater responsibility for their learning' and teachers will have to take full responsibility for careful planning and management of their learners' learning environment. As a result, individuals learn more effectively if they are clear about the objectives and outcomes they are expected to achieve.

Trainers were also asked to highlight their perception on OBT. As indicated in the same table item 1, trainers 29(35.4%), 20(24.4%) and 19(23.2%) reported in their order of perception about OBT show that learners have to take greater responsibility for their learning, learning is modular, where an emphasis is on what the learner should be able to do and it is an assessment oriented against predefined performances at the end of each training modules, respectively. However, few trainers, 14(17.1%) reported that the trainer/teacher becomes a facilitator in the training situation instead of acting as a source of information. This shows that the majority of trainers are not clear with the duly role of trainers in an OBT. In connection to this, Guthrie (2009) stated that, training packages do not prescribe how an individual should be trained. Trainers develop learning and assessment strategies – the 'how' – to support an individual learners' needs, abilities and circumstances.

Similar to the above analysis and understanding of trainer's/teacher's role, Biemans et al (2004), stated that, the extent to which the role of teachers' changes can easily be overlooked when competence-based education is implemented. The teacher is supposed to switch from

the role of an expert, transferring knowledge to a coaching role, guiding students' learning processes. Students are supposed to take responsibility for their own learning, whereas the teacher is used to be in charge.

Item 2, of Table 4 was designed to know the perception of respondents about the differences of OBT and traditional training. Consequently, the majority of trainees, 134(73.6%) responded by indicating that outcome-based learning differs from traditional learning in that trainees compete with the predefined performance not with each other and the focus is on the achievement of competences , not the time spent on training.

As to trainer respondents 30(38.9%) pointed out that a performance-oriented training system is based on clearly defined tasks which comprise the job to be learned is one of the major differences of OBT in addition to trainees' responses.

According to MoE (2008b), the new TVET system facilitates the emergence of modern teaching and learning methodologies, which are learner-centered and geared towards empowering trainees to assume responsibility for their own learning. The only benchmark stipulated by the TVET system will be the outcome, i.e. the desired competences defined in the occupational standards. In supporting this, Botha (2002) stated that outcomes-based education is a learner-centered approach where the emphasis is not on what the teacher wants to achieve, but rather on what the learner should know, understand, demonstrate (do) and become. Teachers and learners focus on certain predetermined results or outcomes to be achieved by the end of each learning process. Therefore, it is evident from the ongoing discussion trainees and trainers need further information on the issue to realize OBT approach.

4.2.2 Issues Related to Availability of Resources

Table 5: Respondent Trainers' Views about the Extent of Availability of Physical Resources

No	Items	Frequency Alternatives					Statistics			
		Very high (5)	High (4)	Average (3)	Low (2)	Very low (1)	Total	\bar{X}	S ²	S.D
1	Adequacy of workshop/ laboratory	0 (0.0%)	6 (13.6%)	20 (45.5%)	15 (34.1%)	3 (6.8%)	44 (100%)	2.66	0.63	0.79
2	Match of training materials and equipment to the unit of competences of the occupational standard	1 (2.3%)	5 (11.4%)	20 (45.4%)	14 (31.8%)	4 (9.1%)	44 (100%)	2.66	0.77	0.88

Note: \bar{X} = Mean, S² = variance, S.D = standard deviation

As one can see and understand from Table 5, item 1, attempts to identify the adequacy of workshop/laboratory for an OBT. Accordingly, trainers 20(45.5%) regarding to adequacy of workshop/laboratory for training reported that it was average. Others respondents 18(40.9%) reported that adequacy of workshop/laboratory was low or very low. The responses were supported by descriptive test made in Likert scale data in Table 5, item 1, which indicated that the mean is (2.66) which implies that the mean is less than the ideal mean (3), showing that the adequacy of workshop/laboratory is inadequate.

As regards to matching of training materials and equipment to the unit of competence, Table 5, item 2, indicates that trainers, 20(45.4%) reported that the extent of matching training materials and equipment to the unit of competence was average. On the other hand,

18(40.9%) of respondents responses were low or very low. In this regard, descriptive test made on five Likert scale data to Table 5, item 2 revealed that the mean is (2.66) which is less than the expected mean (3) implying that there was a mismatch of training material and equipment with the unit of competence of occupational training.

With regard to training materials, Middleton (1993) noted that, inadequate supply of equipment, lack of workshops; and out-dated equipment will make effective training impossible. Boldly, in an OBT system, appropriate teaching materials are essential as per each unit of competence to enable trainees in achieving predetermined standard. Likewise, Hellwig (2006) suggested that the degree of successful implementation of competence-based training depends, on the one hand on the facilities and equipment at the institution, and on the other the learning materials that are provided.

During the observation, the student researcher as well observed that there is insufficiency of training materials and equipment (see photos in appendix F1-F5). Moreover, some trainers in their responses to the open-ended questions have stated that they hardly get the required materials as per unit of competence of occupational standard for practical training. The standard deviations of items in Table 5 are less than 1, which implies that the data observed seems close to the ideal mean.

In general, as illustrated in Table 5, there was inadequacy of workshop/ laboratory and mismatch of the provided training materials and equipment to the unit of competences of the occupational standard. Therefore, this finding shows that there was a lack of supportive and positive environment for the execution of OBT.

Table 6: Training Materials and Equipment as Viewed by Trainers

No	Items	Frequency Alternatives					Total	Statistics		
		Always (5)	Mostly (4)	Sometimes (3)	Rarely (2)	Not at all (1)		\bar{X}	S. D	X^2
1	The management of college/Institute have the necessary knowledge in fulfilling material and equipment for outcome-based training	9 (20.5%)	15 (34.1%)	9 (20.5%)	9 (20.5%)	2 (4.5%)	44 (100%)	3.45	1.16	9.63
2	Training material resource position are adequately staffed	5 (11.4%)	11 (25%)	7 (15.9%)	18 (40.9%)	3 (6.8%)	44 (100%)	2.93	1.17	16
3	Purchased materials are appropriate for training	4 (9.1%)	21 (47.7%)	8 (18.2%)	9 (20.5%)	2 (4.5%)	44 (100%)	3.36	1.05	24.86
4	There is a continuous follow-up of purchasing process on the side of concerned bodies	1 (2.3%)	18 (40.9%)	8 (18.2%)	13 (29.5%)	4 (9.1%)	44 (100%)	2.98	1.08	21.23
5	There is a timeliness of purchasing and distribution process of training materials	3 (6.8%)	20 (45.5%)	6 (13.6%)	10 (22.7%)	5 (11.4%)	44 (100%)	3.14	1.18	20.77

Note: Chi-square critical value at df 4 (α , 0.05) = 9.488

The items in Table 6 were designed to know the degree of fulfillment of training materials and equipment. As it was indicated in the table, items 1,2,3,4, and 5 were stated positively, and the mean score was 3.45, 2.93, 3.36, 2.98 and 3.14, respectively. Item 1, 3 and 5 have a mean score, which is greater than the expected mean score (3). Therefore, one could conclude the management of sampled institutions has the necessary knowledge in fulfilling training materials and equipment for OBT. Moreover, there is a timeliness of purchasing and distribution process of training materials and purchased materials are appropriate for training. In this regard, the chi-square calculated value in all items observed is greater than the critical value. This shows that there were statistically significant differences.

As shown in items 2 and 4 of Table 6, 28(63.6%) and 25(56.8%) of the trainers reported that the training material resource position are poorly staffed and there was no continuous follow-up of purchasing process, respectively. The mean scores in the same table of item 2 and 4 were 2.93 and 2.98 respectively. These mean scores are less than the expected mean (3). This finding confirmed that the training material resource position was not sufficiently prearranged and there was no continuous follow-up of purchasing process on the side of the concerned bodies. To see the statistical difference, chi-square was calculated. The result showed for a degree of freedom 4 at (alpha, 0.05) level of significance differences critical value is less than the calculated chi-square. Therefore, there was a statistical significant difference.

In the interview made with, the college/institute deans, directors and training process owners also indicated that the materials, tools and equipment and other facilities essential in the delivery of OBT were not set according to resource requirements of unit of competences of occupational standards to support occupational learning process which facilitates in achieving the desired learning outcomes. Therefore, this finding entails that OBT was not practiced according to its requirements of training materials.

Table 7: Emphasis of Administrative Personnel on Outcome-based Training as Viewed by Trainers

Items	Frequency Alternatives						Statistics		
	Very high (5)	High (4)	Average (3)	Low (2)	Very low (1)	Total	\bar{X}	S ²	S.D
1. How do you rate the support and encouragement offered by the institution officials in facilitating and implementing an outcome-based training process?	1 (2.3 %)	11 (25%)	26 (59.1%)	6 (13.6%)	0 (0.0%)	44 (100%)	3.16	0.45	0.67
2. In an outcome-based training delivery system the knowledge and training of the administrative personnel is :	3 (6.8 %)	7 (15.9 %)	25 (56.8%)	9 (20.5%)	0 (0.0%)	44 (100%)	3.09	0.63	0.79

As depicted in item 1 of Table 7, the respondents 38(86.4%) asserted that the support and encouragement offered by the institutions' officials in facilitating and implementing an OBT was rated average and above average with a mean value of (3.16), implying, that greater than the expected mean (3). Additionally the standard deviation (0.67) was closer to zero, which shows the respondents' perception is close to the expected mean (3) implying average.

Regarding item 2 of Table 7, trainers 35(79.5%) reported that the knowledge and training of administrative personnel about OBT delivery system was average and above average. The remaining 9(20.5 %) of the respondents replied that the knowledge and training of administrative personnel is low.

In this connection, descriptive test was made on five Likert scale data on item 2, for the respondents, revealed that the mean (3.09) seem to be greater than the ideal mean (3). However, this implies that the respondents' rating is average. Therefore, this finding shows that the administrative personnel need to have adequate knowledge about OBT delivery system in order to improve the efficiency of OBT practices.

Table 8: Responses of Trainers in Designing Outcome-Based Training

No	Items	Respondents			
		Trainees		Trainers	
		N	%	N	%
1	According to your observation, trainers/ teachers have given more emphasis to:				
	A/ Competitive learning	79	35	-	-
	B/ Individualistic learning	48	21.2	-	-
	C/ Group learning	99	43.8	-	-
	*Total	*226	100		
2	To what extent do you design outcome-based training delivery system to ensure that all trainees actively work/perform individually?				
	A/ High	-	-	13	29.5
	B/ Moderate	-	-	26	59.1
	C/ Low	-	-	5	11.4
	Total			44	100

Note: Total * exceeds the number of respondents, because they were allowed to give more than one answer in each case.

Item 1 in Table 8 was designed to know the extent of emphasis given by trainers on the approaches of training which enables each trainee to perform the job individually. As it is indicated in the table, most trainees 99(43.8%) and 79(35%) reported that an emphasis was given to group and competitive learning, respectively, where an emphasis given to individualistic learning was reported by few of trainees 48(21.2%). Therefore, this finding indicates that less attention has been given to individualistic learning.

With regard to item 2 of Table 8, quite a significant number of trainers 31(70.5%) reported that level of designing OBT in enabling all trainees to work/perform individually is moderate and low. This finding demonstrates that mastery of competences seems difficult for the majority of trainees, where mastery of competences is the criterion of success of the learning process and a learner has to perform up to a pre-defined standard because competence is matching of the necessary level of knowledge with an appropriate performance. Therefore, in designing OBT, trainers ought to address individualistic. In this regard MoE (2008c) stated that individualized instruction, variable time per skill, and outcome learning are the basis of OBT programs.

Table 9: Trainees' and Trainers' Views on adequacy of training up to the Predefined Performances of Occupation

No	Items	Respondents			
		Trainees		Trainers	
		No	%	No	%
1	How sufficient do you think are the existing equipment/machine that would help the trainees to acquire skills according to outcome-based training? A/ very sufficient B/ Sufficient C/ Insufficient Total	10 52 116 178	5.6 29.2 65.2 100	- - - -	- - - -
2	In your opinion, is the training according to your expectation? A/ Yes B/ No Total	62 116 178	34.8 65.2 100	- - -	- - -
3	If your answer is "No", why? A/ It is more theory B/ materials are not modularized C/ Shortage of facilities D / Low interest of trainer for practical training *Total	84 39 88 46 *257	32.7 15.2 34.2 17.9 100	- - - -	- - - -
4	Do you think the trainees get adequate training up to the predefined performances to their occupation? A/ Yes B/ Partially C/ No D/ I do not know Total	- - - -	- - - -	14 26 3 1 44	31.8 59.1 6.8 2.3 100

Note: Total * exceeds the number of respondents, because they were allowed to give more than one answer in each case.

According to Table 9, item 1, a question was presented to trainee respondents in order to indicate sufficiency of equipment/machines which helps them to acquire skills according to module training. Consequently, quite a large number of trainees, 116(65.2%) reported that equipment/machines are insufficient. In supporting this trainer respondents reported in the same way (see Table 5). Therefore, this shows that there was lack of equipment/machines for an OBT in the sampled institutions under the study.

As one could see from Table 9, item 2, there was an intention to know whether the training is according to trainees' expectation or not. Consequently, majority of trainees, 116(65.2%) reported that it was not according to their expectation.

To be acquainted with the details, the student researcher asked a question, in the same table, item 3, why it is not according to their expectation. According to the weight of their responses, 88(34.2%), 84(32.74%) and 46(17.9%) trainees reported that the reasons were: shortage of facilities, the training was theoretical and the low interest of trainers for practical training, respectively.

Item 4 of Table 9, was designed on purpose to know the status of delivered training. As it was indicated in the table, 30(68.2%) trainers reported that trainees were not getting adequate training up to the predefined performances as it is stated in EOS.

In general, from Table 9 one could conclude that learners only attained pseudo- knowledge, pseudo-skills, and pseudo-attitudes of the job. However, the responsibility of the institution and trainers/teachers is to supply appropriate learning experiences for the success of all trainees.

In this connection Fletcher (1994) stated that, if standards were based upon expectations of performance, set by industry, and linked to qualifications which could only be achieved through actual demonstration of the required performance, then problems of training such as theory base training, resource constraints and lack of skilled TVET teachers has to be solved.

Table 10: Responses of Trainees and Trainers concerning monitoring and assessment of outcome-based training

No	Items	Respondents			
		Trainees		Trainers	
		N	%	N	%
1	How do trainers monitor learning outcome tasks?				
	A/ Visiting while working on the task	96	41.9	37	52.9
	B/ by regular progress reports	39	17	14	20
	C/ by final products of work/ task	94	41.1	19	27.1
	Total	*229	100	*70	100
2	Which part of outcome-based training needs to be assessed?				
	A/ The process of work	10	5.6	12	23.5
	B/ The product of work	37	20.8	8	15.7
	C/ A and B	131	73.6	31	60.8
	Total	178	100	*51	100
3	The training time provided for practical session is				
	A/ highly sufficient	11	6.2	-	-
	B/ Moderately sufficient	55	30.9	-	-
	C/ Insufficient	112	62.9	-	-
	Total	178	100		
4	Methods commonly used to assess trainee's mastery of learning outcomes				
	A/ Observation	-	-	24	28.6
	B/ written tests	-	-	30	35.7
	C/ actual demonstration of performance	-	-	30	35.7
	Total			*84	100

Note: Total * exceeds the number of respondents, because they were allowed to give more than one answer in each case.

The items in Table 10 were intended to know how an OBT is assessed by trainers. As can be seen from item 1 of Table 10, trainees, 96(41.9%), 94(41.1%) and 39(17%) reported that trainees' monitoring of learning outcomes was done by visiting while working on the task, by final products of work/task and by regular progress reports, respectively. In the

same flow, trainers 37(52.9%), 19(27.1%) and 14(20%) reported that confirming trainees' response in the same order. This implies that learning outcomes monitoring was dominantly performed by visiting trainees while they are doing and evaluating final product of the work.

On the other hand, as illustrated in the same Table of item 2, respondents were also asked to specify which part of OBT needs to be assessed. Accordingly, quite a large number of trainees 131(73.6%) and trainers 31(60.8%) reported that the part of OBT to be assessed are the process of work and the product of work. The others were reported on either of the two. This finding shows that considering the process of work and the product of work in assessment means confirming mastery of competences which is the criterion of success for the learners to compare their performance to a predefined standard of the job.

Item 3 of Table 10 reveals that the majority of trainees 112(62.9%) reported that the time provided for practical training is insufficient. In addition to this, trainees have discussed in the response of open-ended questions that they were not given adequate time for practical training. This finding implies that there was a shortage of time on the mastery of competences.

Item 4 of Table 10 exhibited the methods used by trainers to assess trainee's mastery of learning- outcomes. Accordingly, the same number of trainers, 30(35.7%) reported that they use written tests and actual demonstration of performances. On the other hand, 24(28.6%) reported that assessing is through observation.

According to MoE (2008b), assessment of individuals entails gathering evidence and making decisions about the outcomes of learning or competence. Assessment focuses on all aspects of the competence-task skill, management skills, transfer skills, employability skills, and etc- and requires actual performance of the competence as the primary source of evidence; that is; the individual has to demonstrate the required knowledge, skills and attitude necessary for the job. Methods of assessment include practical demonstrations, role-play, and oral and written questioning, work place simulation, case studies, direct

and indirect observation, log and supervisor's reports. Thus, a wide range of assessment instruments are applied in the appropriate setting, ensuring that all competences are assessed.

Table 11: *Feelings toward the Implementation of an Outcome-based Training as Viewed by Trainers*

Items	Respondents		
	Trainers		
	No	%	X2
What is your feeling toward the implementation /practice/ of an outcome-based training?			
A/ Very difficult	0	0.0	34.36
B/ Difficult	18	40.9	
C/ Not difficult	23	52.3	
D/ difficult to measure	3	6.8	
Total	44	100	

Note: Chi-square critical value at df 3 (alpha, 0.05) = 7.815

Concerning feelings of trainers on the implementation of an OBT, as shown in Table 11, 23(52.3%) of them reported that they don't feel that it is not difficult to implement OBT. But, not negligible part of respondents, 21(47.7%) reported that it is difficult. According to the responses secured for the open-ended questions forwarded to the respondents of trainers show that, skill gap of trainer's makes implementation of OBT difficult. Moreover, lack of immediate response from the institution on providing training materials makes OBT practices difficult. This finding shows that these trainers were not clear with OBT delivery system. The chi-square calculated value (34.36) is greater than the critical value. Therefore, there is a statistical significant difference in the responses given by trainers.

In this connection, the interview made with the college/institute deans, directors and training process owners confirmed that trainers do have a feeling of difficulty in implementing OBT. Moreover, they are suspicious of it from its resource implication and difficulties with competence-based assessment. They expressed mainly concerning the required amount of

time. Thus, they are uncertain about its effective implementation. In general, as shown in Table 11 and the responses obtained from interview questions on the practices of OBT is not at its satisfying level.

Table 12: Methods/ Strategies those Trainers Employ to Deliver an Outcome-based Training as Observed by Trainees

No	Items	Respondents	Frequency Alternatives					Statistics				
			Always (5)	Mostly (4)	Sometimes (3)	Rarely (2)	Not at all (1)	Total	\bar{X}	\bar{X}_{ave}	S ²	S.D
1	Lecture / Explanation	Trainees	83 (46.6%)	37 (20.8%)	45 (25.3%)	9 (5.1%)	4 (2.2%)	178 (100%)	4.04	3.87	1.12	1.1
		Trainers	12 (27.3%)	11 (25%)	18 (40.9%)	2 (4.5%)	1 (2.3%)	44 (100%)	3.7		0.98	0.99
2	Demonstration	Trainees	32 (18%)	31 (17.4%)	60 (33.7%)	20 (11.2%)	35 (19.7%)	178 (100%)	3.03	3.43	1.79	1.34
		Trainers	9 (20.4%)	21 (47.7%)	12 (27.3%)	1 (2.3%)	1 (2.3%)	44 (100%)	3.82		0.74	0.86
3	Question and Answer	Trainees	26 (14.6%)	27 (15.2%)	62 (34.8%)	19 (10.7%)	44 (24.7%)	178 (100%)	2.84	3.27	1.81	1.35
		Trainers	11 (25%)	13 (29.5%)	16 (36.4%)	4 (9.1%)	0 (0.0%)	44 (100%)	3.7		0.89	0.94
4	Group project	Trainees	15 (8.4%)	36 (20.2%)	84 (47.2%)	22 (12.4%)	21 (11.8%)	178 (100%)	3.01	3.34	1.13	1.1
		Trainers	7 (15.9%)	18 (40.9%)	16 (36.4%)	3 (6.8%)	0 (0.0%)	44 (100%)	3.66		0.68	0.82
5	Individual project	Trainees	8 (4.5%)	16 (9%)	60 (33.7)	43 (24.2%)	51 (28.6%)	178 (100%)	2.37	2.89	1.25	1.12
		Trainers	7 (15.9%)	12 (27.3%)	18 (40.9%)	6 (13.6%)	1 (2.3%)	44 (100%)	3.41		0.97	0.98
6	Hands on practice	Trainees	35 (19.7%)	47 (26.4%)	42 (23.6%)	0 (0.0%)	26 (14.6%)	178 (100%)	2.89	3.4	1.73	1.32
		Trainers	18 (40.9%)	12 (27.3%)	7 (15.9%)	6 (13.6%)	1 (2.3%)	44 (100%)	3.91		1.31	1.14

As shown in Table 12, respondents were asked to indicate training methods used by trainers. In responding this question in item 1, 120(67.4%) and in item 6, 82(46.1%) trainees reported that the trainers are using most of the time lecture and hands on practice, respectively. In this regard, descriptive test made using five points Likert type scale which revealed that the mean of lecture as a method of instruction was (4.04) which is greater than the ideal mean (3), thereby implying that the respondents rating was high. Thus, one could conclude that lecture method was used highly. On the contrary, the mean of hands on practice is (2.89) less than the ideal mean (3) which shows rating of respondents was low. Therefore, this implies that a hand on practice way of training is less used.

On the other hand, in item of 3 and 5 in the same table, trainees 63(35.4%) and 94(52.8%) were reported that the trainers are using rarely question and answer and individual project as methods of training, respectively. In this connection, descriptive test made on five Liker scale revealed that the mean (2.84) for question and answer and for individual project (2.37) which is less than the expected mean (3). Therefore, the conclusion of this finding could be that individual project as training method was hardly used.

The response of trainers, presented in Table 12, in item 4 and 6, the same number of trainers 30(68.2%) reported that they are using most of the time demonstration and hands on practice, respectively as methods of training. In relation to this, the mean observed on five Likert scale data in Table 12 for these items were (3.82 and 3.91) which are greater than the ideal mean (3) showing that the rating is high. Thus, one could deduce that trainers are using demonstration and hands on practice as a way of training in OBT delivery system.

On the other hand, in Table 12, of item 1 and 5 trainers 3(6.8%) and 7(15.9) were reported that they were using rarely lecture method and individual project method as method of training, respectively. In this regard, descriptive test made on five points Likert type scale mean of item 1 and 5 were (3.7) and (3.4), respectively which were greater than expected mean (3). However, in order to have effective OBT program one has to use training /teaching methods that focus on doing, not on theory. In connection to this, Hellwig (2006) stated that in the application of competence-based training, first and foremost, the delivery has to be

more industry-focused, since the competence standards comprise workplace requirements and therefore are more practical.

In general, Table 12 exhibited the responses of respondents regarding to the trend of training methods in giving OBT. Accordingly, calculated average mean of lecture method was (3.87) which is in the range of (3.5-4.5). Where as demonstration (3.43), hands on practice (3.4), individual project (2.89), and group project (3.34) question and answer (3.27) which were in the range of (2.5-3.5). Therefore, this implies that lecture method was used at high rate while demonstration, hands on practice and individual project were used moderately as a ways of training method. Moreover, group project and question and answer were used at moderate level. Thus, there is more to be made for better use of demonstration, hands on practice and individual project as methods of training in OBT.

According to the responses secured for the open-ended questions forwarded to the respondents of trainers, the lack of training materials, inadequate workshop, and inadequate training machines makes effective practices of OBT difficult. Thus, it seems that trainers were normally enforced to continue with lecture method as training method in OBT programs. Similarly, trainees reported in the same way, due to the shortage of training materials, inadequate training machines and large numbers of trainees in class/workshop trainers were given theory base training.

Table 13: Factors Affecting the Implementation of Outcome-based Learning as Viewed by Trainees

No	Items	Frequency Alternatives					Total	Statistics		
		Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly Dis. (1)		\bar{X}	S ²	S.D
1	Tendency to the traditional lecture method in the course of training	64 (36%)	68 (38.2%)	12 (6.7%)	22 (12.4%)	12 (6.7%)	178 (100%)	3.84	1.5	1.22
2	Number of trainees in class	40 (22.5%)	29 (16.3%)	38 (21.3%)	47 (26.4%)	24 (13.5%)	178 (100%)	3.08	1.86	1.36
3	Lack of a clear picture and objectives about outcome-based training prior to actual training	40 (22.5%)	45 (25.3%)	33 (18.5%)	29 (16.3%)	31 (17.4%)	178 (100%)	3.19	1.97	1.4
4	The physical set up and less equipped class/ workshop/ laboratory	58 (32.6%)	43 (24.2%)	17 (9.5%)	23 (12.9%)	37 (20.8%)	178 (100%)	3.35	2.38	1.54
5	Knowledge on the relationship between outcome-based training and assessment	38 (21.4%)	47 (26.4%)	28 (15.7%)	37 (20.8%)	28 (15.7%)	178 (100%)	3.17	1.93	1.39
6	Readiness of Institutional officials to facilitate the training and motivate the trainees	46 (25.8%)	35 (19.7%)	34 (19.1%)	27 (15.2%)	36 (20.2%)	178 (100%)	3.16	2.17	1.47
7	Organization and efficiency of the library	73 (41%)	28 (15.7%)	13 (7.3%)	29 (16.3%)	35 (19.7%)	178 (100%)	3.42	2.57	1.6

Knowing the factors influencing performance of OBT is important for the concerned body and to address the problem of OBT. There could be several factors that impede performance of OBT. Thus, trainees were asked to indicate factors that they believe as a factor that affect performance of OBT.

As it is illustrated in Table 13, item 1, 4 and 7 trainees 132(74.2%), 101(56.7%) and 101(56.7%), respectively indicated that the tendency to the traditional lecture methods in the course of training, the physical setup and equipped of class/workshop/laboratory and the organizational efficiency of library in their weight of response are the major influencing factors that hamper OBT performance.

In this connection descriptive test made on five Likert scale data Table 13 in item 1, 4 and 7 reveals that the mean were 3.84, 3.35 and 3.42, respectively. This implies that the means are greater than the expected mean (3) showing that the respondents rating were almost high.

In general, as shown in Table 13, trainee respondents identified that the tendency to the traditional lecture methods in the course of training, the physical setup and equipped of class/workshop/laboratory and the organizational efficiency of library were found to be the major influencing factors that hamper OBT performance.

Table 14: Factors Affecting the Implementation of Outcome-based Learning as Viewed by Trainers

No	Items	Frequency Alternatives					Total	Statistics		
		Strongly Ag. (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly Dis. (1)		\bar{X}	S ²	S.D
1	Tendency to the traditional lecture method	9 (20.5%)	17 (9.6%)	7 (15.9%)	6 (3.4%)	5 (2.8%)	44 (100%)	3.43	1.61	1.27
2	Lack of on-job training for trainers' on difficult unit competences incorporated in occupational standard and upgrading trainer's educational status	18 (40.9%)	17 (38.6%)	0 (0.0%)	7 (15.9%)	2 (4.5%)	44 (100%)	3.95	1.45	1.2
3	Lack of well-developed instructional materials(Module curriculum, Training Teaching and Learning Material, ...)	16 (36.4%)	19 (43.2%)	1 (2.3%)	7 (15.9%)	1 (2.3%)	44 (100%)	3.95	1.23	1.11
4	Number of trainees	13 (29.5%)	15 (34%)	6 (13.6%)	9 (20.5%)	1 (2.3%)	44 (100%)	3.68	1.35	1.16
5	Loose responsibility of trainees in the course of training	7 (15.9%)	17 (38.6%)	7 (15.9%)	12 (27.3%)	1 (2.3%)	44 (100%)	3.39	1.24	1.11
6	Readiness of Institutional officials to facilitate the training and motivate the trainers	11 (25%)	20 (45.5%)	3 (6.8%)	10 (22.7%)	0 (0.0%)	44 (100%)	3.73	1.15	1.07
7	The purchasing and supply system of training materials	11 (25%)	24 (54.5%)	4 (9.1%)	5 (11.4%)	0 (0.0%)	44 (100%)	3.93	0.79	0.89
8	Organization and efficiency of the library	9 (20.5%)	23 (52.3%)	3 (6.8%)	7 (15.9%)	2 (4.5%)	44 (100%)	3.68	1.22	1.1

Trainers were also asked to indicate factors that affect OBT practices. The response secured from them presented in Table 14. As it is depicted in Table 14, item 2, 3 and 7 with the same number of trainer respondents 35(79.5%) indicated that lack of on-job training on difficult unit of competences in Occupational Standard (OS) and upgrading trainer's educational status, lack of well developed instructional materials (Modular Curriculum, TTLM, ...etc) and the purchasing in addition to the supply system of training materials are the major factors affecting the practices of OBT.

The responses were checked using a descriptive test on five Likert scale data. To this end, the mean for the item 2, 3 and 7 were 3.95, 3.95 and 3.93, respectively, which implies that the mean of the respondents were greater than the expected mean (3). Therefore, this shows that they are the major factors in affecting practices of OBT.

The responses to the interview questions with the college/institute deans, directors and training process owners assumed that the major factors that would affect OBT delivery system are as follows: lack of competent and qualified trainers, less equipped workshops and laboratories, lack of appropriate training machines, equipment, instructional materials and other facilities as well as absence of on-the-job training for trainers. Furthermore, they converse the major problems encountered so far in practicing OBT. Accordingly, they reported that, on the one hand the skill gap of trainers to give the training as it is designed and intended is the source of the problem, and on the other hand, the scarce of training materials, tools and equipment. Moreover, lack of real work place/situation for practice is the common problem of the training these days in the sampled institutions.

CHAPTER FIVE

Summary, Conclusions and Recommendations

This chapter deals with the summary of the major findings, conclusions and the recommendations forwarded based on the findings.

5.1 Summary

The major purpose of this study was to identify the practices and challenges of OBT in TVET institutions, in Arsi Zone of Oromiya Regional state. All the study endeavors were to achieve the major and specific objectives of the study. To this effect, attempts have been made to get answers to the following basic research questions.

1. To what extent are the human and physical resources requirements for the OBT fulfilled?
2. How do professionals and trainees view OBT?
3. How are competences of training fields currently assessed in TVET institutions?
4. What are the major factors affecting OBT delivery system?

To achieve this purpose, descriptive survey method was employed and the study was conducted in two public TVET institutions using purposive sampling technique. To select the respondents from the institutions' proportional stratified sampling was employed for trainees and trainers from the training institutions.

The subjects of the study were 178 trainees, 44 trainers, 2 deans, and 2 training process owners. Information was obtained from sample respondents through questionnaires, interview, and observations. The data obtained were analyzed using statistical tools such as percentage, mean difference and chi-square test as appropriate. In addition, the data obtained through interview and observations were presented in complementing the data obtained by means of questionnaire. Based on the data collected and analysis made the following major findings were obtained.

1. With regard to the human and physical resources

1.1 The extent of human resource fulfillment for the OBT Programs

1.1.1 The study revealed that, 18(40.9%) of the trainers respondents were Diploma holders. On the other hand, 26(59.1%) were First Degree holders. This shows that the human resource is not up to the TVET strategy (2008) which suggests that all trainers at this level ought to have a minimum of First Degree. Therefore, the degree of competence and fitness of the trainers in the training institutions were low.

1.2 The extent of physical resource fulfillment for the OBT Programs

1.2.1 As revealed by the study the extent of workshop /laboratory fulfillment for OBT was inadequate. Moreover, there was a mismatch of training material and equipment with the unit competence of occupational training. Besides, some trainers reported that they hardly get the required materials as per the unit of competence of occupational standard for practical training. Furthermore, real work place/situation, the major important unit of OBT to provide trainees practical training is missing.

2. Regarding views of professionals and trainees towards OBT:

2.1 The study pointed out that, although the majority of respondents were given orientations/information on OBT, its contribution to understand the basic concepts of outcome-based learning/training were average. Therefore, it was found that the respondents were not plainly aware of the training approach.

- 2.2 The finding also showed that the majority of the trainee respondents didn't know about the unit competences of occupational training before they started their training.
- 2.3 The study disclosed that, the administrative personnels' knowledge and training on OBT delivery system was moderate.
- 2.4 As the study revealed that, the provided training was inadequate which means it is not up to the predefined performances stated in EOS. This finding conveys that the desired learning outcomes and failure to assess outcomes properly could end in a situation where learners only attained pseudo-knowledge, pseudo-skills, pseudo-attitudes and pseudo-values. On completion of their studies these learners are awarded a certificate inherently implying that they have attained certain competences whereas in fact they have not. This goes with what SPT Malan (2000) got in his research.
- 2.5 In addition, the study exhibited trainers' view that they have a feeling of difficulty in implementing OBT. Moreover, some of them were suspicious of its practices from its resource implication and that too much time was used for assessment so that, they were uncertain for its effective implementation.

3. In relating to assessment of competences in TVET institutions

- 3.1 The study has showed that, the time provided for practical training was insufficient which has an impact on the realization of competences and assessment. As a result, individual trainee could not demonstrate the required knowledge, skills and attitude necessary for the job. Therefore, this shows that trainers don't give a considerable amount of time for trainees in practical training.

4. Concerning the factors affecting Outcome-Based Training delivery system

4.1 The study revealed that, lack of on-job training on difficult unit of competences in OS and upgrading trainer's educational status, lack of well developed instructional materials (Modular Curriculum, TTLM, etc) and the purchasing in addition to supply system of training materials as the major factors that entail challenges on OBT practices in TVET institutions.

4.2 The study also identified that the tendency of using lecture as training method, the physical setup and inadequate set of class /workshop/ laboratory and the organizational efficiency of library are the other factors affecting OBT.

5.2 Conclusions

Based on the major findings of the study, the following conclusions may be drawn: OBT implementation is largely dependent on the availability of the proper physical and human resources. As the study revealed OBT delivery system was not implemented as intended in the sample selected institutions. Because the study was found that the respondents were not plainly aware of the training approach, the degree of competence and fitness of the trainers in the training institutions were low, the extent of workshop /laboratory fulfillment for OBT was inadequate and there was a mismatch of training material and equipment with the unit competence of occupational training. Therefore, there is a variation between the ideal features of the OBT approach to exist and what is actually being practiced in the institutions.

From the above discussions, the currently provided training was inadequate which means it is not up to the predefined performances as stated in EOS. Therefore, this finding conveys that the desired learning outcomes and failure to assess outcomes properly could end in a situation where learners only attained pseudo- knowledge, pseudo-skills, pseudo-attitudes and pseudo-values. On completion of their studies these learners are awarded a certificate inherently implying that they have attained certain competences whereas in fact they have not. This goes with what SPT Malan (2000) got in his research.

The absence of favorable training environment may endorse traditional way of training (Trainer centered). In addition to this, the absence of on-the-job training on difficult unit of competences seems to aggravate a problem in the implementation of OBT.

Therefore, due to the above mentioned shortcomings the objective of OBT implementation program could not be attained. Because, lack of appropriate training is due to lack of equipped training material, incompetent trainers and the low level perception of the training approach. These are the determinant problems that need to be resolved to increase the performance of OBT delivery system.

5.3 Recommendations

Revealing the challenges does not provide a solution in itself. Hence, in light of the findings of this study and conclusions made, the following major recommendations are forwarded in order to attain the objectives of OBT.

1. The successful implementation of outcome-based education depends on informed and motivated communities. Therefore, it is recommendable that adequate awareness ought to be created by all at all levels of vocational education bodies. The regional state TVET Agency including training institutions should device a mechanism of regular awareness creation through possible ways and means such as:

- 1.1 Panel discussions , seminars and workshop trainings;

- 1.2 Televisions and radio; and

- 1.3 News paper, brochures, flyers and the like to familiarize the stakeholders with all facets of this training approach.

2. Substantial capacity building and support is necessary to enable TVET providers to the development of OBT for the existing TVET providers, because they are not yet quite in a position to practice OBT approach unless otherwise they are capacitated. Therefore, it is advisable to fulfill the necessary physical and human resources on the bases of resource requirements for that specific occupational training ahead of training starting time. If failed to do so, it is better to delay the starting time.

3. In order to make an outcome-based training program effective and the training environment more conducive the necessary conditions need to be fulfilled as per requirements to maintain the learning outcomes. Therefore, it is recommended that:

- 3.1 The Regional state government need to plan, and budget a considerable amount to administer the training system successfully.

- 3.2 The respective training institutions should try to influence local administrators and mobilize the community as much as they could to fulfill the physical resources to minimize the problems.
4. Some of the existing TVET trainers do have skill-gaps to give an OBT in accordance with the EOS. Therefore, after TVET institutions identified the skill-gaps of their trainers, it is recommendable if on-the-job training be provided on the difficult unit of competences including appropriate training methodology in collaboration with Regional TVET Agency and MoE and upgrading educational qualification of those trainers up to the profiles of trainers as stated by MoE.
 5. Strengthening cost-effective modes of TVET delivery is an important means of improving efficiency in the TVET system. Accordingly, it is recommended that promoting cooperative training schemes with the nearby and compatible industries and enterprises is an option to provide an OBT. Consequently, it minimizes the current problems of TVET providers.
 6. A key component of OBT approach is expanded opportunity and training support. Trainees need more time and training support to master material. Therefore, it is recommendable to give sufficient time and continuous training support for individual trainee to perform the predefined standard of the job.

REFERENCES

- ACCI (Australian Chamber of Commerce and Industry) 1992. **The Australian national training system: Guidelines for employers**. Melbourne, ACCI.
- Alderson, A. & Martin, M. (2007). 'Outcomes- Based Education: Where has it come from and where is it going?' **Australian Journal of Engineering Education**, online publication 2005-02. vol. 17. <http://www.aeee.com.au/journal/2005/tavner05.pdf>.
- Arguelles, A. & Gonczi, A. (2000). **Competency Based Education and Training: A World Perspective**. Mexico city: Limusa S.A. de C.V.
- Best, J. W., & Kahn, J. V. (1998). **Research in Education** (7th ed.). New Delhi: Prentice-Hall of India.
- Biemans, H. et al (2004). 'Competence-based VET in the Netherlands: background and pitfalls.' **Journal of Vocational Education and Training** [Electronic version]. Vol. 56, no. 4, pp. 523-538.
- Botha, R. (2002). 'Outcomes-based education and educational reform in South Africa.' **International Journal of Leadership in Education**, Vol. 5, no. 4, pp. 361- 371.
- Cliffs, E. (1965). **Occupational information, its development and application**. Washington DC, Prentice-hall.
- Deissinger, T. (2004). 'Germany's system of vocational education and training: challenges and modernisation issues'. **International Journal of Training Research**, vol. 2, no. 1, pp. 76-99.
- Fletcher, S. (1994). **NVQs, standards and competence: A practical guide for Employers, Managers and Trainers**. London, Kogan page Limited.
- Gasko, T.B. (2004). **Competence-Based Training and Development**. (n.d.), <http://www.ameinfo.com/43457.html/>.
- Gasskov, V. (2000). **Managing Vocational Training Systems: A handbook for Senior administrators**. Geneva, International Labor Office.
- Gauld, D & P. Miller (2004). 'The Qualifications and Competencies held by Effective Workplace Trainers.' **Journal of European Industrial Training**, vol 28, 1: 8-22.
- Grant, et al (1979). **On Competence. A critical analysis of competence-based Reforms in higher education**. San Francisco, Jossey-Bass.

- Guthrie, H (2009). **Competence and competency-based training: What the literature says.** Retrieved September 16, 2009 from <http://www.ncver.edu.au/publications/2153.html>.
- Hellwig, S. (2006). 'Competence-based training: different perceptions in Australia and Germany.' **Australian Journal of Adult Learning** [Electronic version]. 46(1), 51-74.
- Hoffmann, T. (1999). 'The Meanings of Competency.' **Journal of European Industrial Training**, vol 23, no.6, pp. 275-285.
- InWent-Capacity Building International Nr.14 (2005). **Structures and Functions of Competence-based Education and Training: A Comparative Perspective.** Germany Technological Cooperation, System Development and Management in Vocational Training Division 4.01. September, 2005. German, Mannheim.
- James, P. (2002). 'Discourses and practices of competence-based training: implications for worker and practitioner identities.' **International Journal of Lifelong Learning**, 21, 4, pp. 269-391.
- Johanson, R & Adams, A. (2004). **Skills Development in Sub-Saharan Africa.** Washington DC: The World Bank.
- Lorriman, J & Kenjo, T (1996). **Japan's Winning Margins: Management, training, and education.** New York: Oxford University Press.
- Leedy, P.D & Ellis, J.O (2005). **Practical Research Planning and Design.** New Jersey: Pearson Education.
- Lucia, A.D. and Lepsinger, R. (1999). **The Art and Science of Competency Models: Pinpointing critical success factors in organizations.** San Francisco: Jossey-Bass Pfeiffer.
- McNeir, G (1993). 'Outcome-Based Education'. **ERIC Digest 85.** <http://www.DVdigests/digest085.html>- Accessed on Google.
- Middleton, J (1993). **Skills for Productivity: Vocational Education and Training in developing countries.** New York :Oxford University Press.
- Miller, P. (2001). 'Book review of Competency Based Education and Training: A World Perspective.' **Journal of Workplace Learning**, 13 (6), pp. 260-261.
- Mitchell, et al (2006). **Quality is the key: Critical issues in teaching, learning and assessment in vocational education and training.** Adelaide: NCVER.
- Mulder, M. (2004). **Education, Competence and Performance: On Training and Development in the Agri-Food Complex.** Wageningen: Wageningen University.

- Mulder, M., Weigel, T & Collins, K (2007). 'The concept of competence in the development of vocational education and training in selected EU member states: a critical analysis.' **Journal of Vocational Education and Training** 59(1): 67-88
- MoE (2006 a). **National Technical & Vocational Education and Training (TVET) strategy (draft for discussion): Building Ethiopia**, August, 2006. Addis Ababa: EMPDE.
- _____ (2008 b). **National Technical & Vocational Education and Training (TVET) Strategy (2nd ed.)**. Addis Ababa: EMPDE.
- _____ (2008 c). **Assessor's Guide and Instructions Handbook**. Addis Ababa : ecbp.
- _____ (2008 d). **Information for Candidates**. Addis Ababa : ecbp.
- _____ (2008 e). **Policy Handbook on Ethiopian National Assessment and Certification System**. Addis Ababa: ecbp.
- _____ (2009 f). **Ethiopia Occupational Standards Development Guideline**. Addis Ababa : ecbp.
- Reuling, J (2002). **Vocational Training and Lifelong learning in Australia: Observations and conclusions from a German perspective**, Vocational Training and Lifelong learning in Australia and German, Adelaide(NCVER), pp. 14-20.
- SPADY, WG. (1994). **Outcome-based education: Critical issues and answers**. Arlington: American Association of School Administrators.
- SPT Malan (2000). The 'New Paradigm' of Outcomes-Based Education in Perspective.' **Journal of family Ecology and Consumer Sciences**, vol. 28, pp.22-28.
- Thomson,P(1991). **Competency-based training: Some Development and Assessment Issues for Policy Makers**. Melbourne: TAFE.
- UNESCO (1984). **Terminology of Technical and Vocational Education**. Paris:UNESCO.

**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
COLLEGE OF EDUCATION
DEPARTMENT OF BUSINESS EDUCATION**

Questionnaire to be filled by Trainers of the Sampled TVET Institutions

The purpose of this questionnaire is to investigate the status of outcome-based training program implementation in Selected TVET Institutions in Arsi Zone.

In addition, it also intends to examine the strength accomplished and thereby to forward possible solutions for the problems encountered in the course of an outcome-based training program implementation; if any.

Accordingly, ***the researcher wishes to bring your attention that the success of this study will highly depend up on your frank, sincere and timely responses.*** So; I kindly request your contribution in filling in the questionnaire honestly.

With best regards

N.B.

Please note that there is no need for writing your name

Thank you in advance for your cooperation!

5. If your response to question 4 is 'low' or 'very low' what alternatives have you been using?

A/ to use wisely what is available

B/ to leave some of the tasks

C/ to report to concerning bodies and wait

D/ all

E/ Other, (Please specify) _____

6. Do you prepare the set of training modules which derived from occupational standards?

A/ Yes

B/ No

7. If your response to question 6 is "No" What problems hinder you from preparing the instructional material for training purposes? **(You can give more than one answer).**

A/ Lack of training in preparation

B/ Lack of time and equipment

C/ Lack of financial and material support

D/ Incompetence for the manipulation of instructional material

E/ Other, (please specify) _____

8. How do you understand outcome-based training? **(You can give more than one answer).**

A/ Learning is modular, where an emphasis is on what the learner should be able to do up to predefined performance.

B/ It is an assessment oriented against the predefined performance at the end of each training modules

C/ The teacher becomes a facilitator in the training situation instead of acting as a source of information transforming content to learners.

D/ Learners have to take greater responsibility for their learning

E Other, (please specify) _____

9. In what ways do you think outcome-based training differs from the traditional training? **(You can give more than one answer).**

A/ Trainees compete with the predefined performance not with each other

B/ The focus is on the achievement of competencies, not the time spent on training

C/ A performance-oriented training system based on clearly defined tasks which comprise the job to be learned

D/ Other, (please specify) _____

19 In your experience of using outcome-based training delivery system, which part of the individual trainee task is assessed? **(You can give more than one answer).**

A/ The process of individual work

B/ The product of individual work

C/ A and B

D/ Other, (please specify) _____

20. Methods commonly used to assess trainee's mastery of learning outcomes? **(You can give more than one answer).**

A/ Observation

B/ written tests

C/ actual demonstration of performance

D/ Other, (please specify) _____

Instruction II: Different instructional methods/strategies that trainers employ to deliver an outcome-based training are listed below. Please, show how often you use in your training by putting (✓) in one of the boxes in the response scale.

No	Instructional Methods/strategies	How often used				
		Always	Mostly	Sometimes	Rarely	Not at all
1	Lecture / Explanation					
2	Demonstration					
3	Question and Answer					
4	Group project					
5	Individual project					
6	Hands on practice					

Instruction III: Fulfilling material and equipment for outcome-based education competence requirements. Kindly check your position on the scale as the statement first impress you. Please, indicate your agreement or disagreement by putting (✓) in the box according to the following response scale: SA (Strongly Agree), A (Agree), U (Undecided), D (Disagree), and SD (Strongly Disagree).

No	Items	SA	A	U	D	SD
1	The management of college/Institute have the necessary knowledge in fulfilling material and equipment for outcome-based training					
2	Training material resource position are adequately staffed					
3	Purchased materials are appropriate for training					
4	There is a continuous follow-up of purchasing process on the side of concerned bodies					
5	There is a timeliness of purchasing and distribution process of training materials					

Instruction V: Factors that may slow down the effective implementation of outcome-based training are given below. Please, indicate your agreement or disagreement by putting (✓) in the box according to the following response scale: SA (Strongly Agree), A (Agree), U (Undecided), D (Disagree), and SD (Strongly Disagree).

No	<i>Factors that affect the effectiveness of training</i>	SA	A	U	D	SD
1	Tendency to the traditional lecture method					
2	Lack of on-job training for trainers' on difficult unit competences incorporated in occupational standard and upgrading trainer's educational status					
3	Lack of well-developed instructional materials(Module curriculum, Training Teaching and Learning Material, ...)					
4	Number of trainees					
5	Loose responsibility of trainees in the course of training					
6	Readiness of Institutional officials to facilitate the training and motivate the trainers					
7	The purchasing and supply system of training materials					
8	Organization and efficiency of the library					

**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
COLLEGE OF EDUCATION
DEPARTMENT OF BUSINESS EDUCATION**

Questionnaire to be filled by Trainees of the Sampled TVET Institutions

The purpose of this questionnaire is to investigate the status of outcome-based training program implementation in Some Selected TVET Institutions in Arsi Zone.

In addition, it also intends to appreciate the strength accomplished and thereby to forward possible solutions for the problems encountered in the course of an outcome- based training program implementation; if any.

Accordingly, the researcher wishes to bring your attention that the success of this study will highly depend up on your frank, sincere and timely responses. So; I kindly request your contribution in filling in the questionnaire honestly.

With best regards

N.B.

Please note that there is no need for writing your name

Thank you in advance for your cooperation!

13. According to your experience, how do your trainers monitor learning outcome tasks? (You can give more than one answer)

A/ Visiting me while I am working on the task

B/ by regular progress reports

C/ by final products of my work/ task

D/ If any other, specify _____

14. According to your understanding which part of outcome-based training needs to be assessed?

A/ The process of work

B/ The product of work

C/ A and B

D/ If any other, specify _____

15. In your opinion, the training time provided for practical session is:

A/ highly sufficient

B/ Sufficient

C/ Insufficient

16. In your training institute/college what are the major problems that hamper effective implementation of outcome-based training?

17. What do you suggest to improve in facilitating outcome-based training in your training Institute/College?

Instruction II: Different instructional methods/ strategies that your trainers employ to deliver an outcome-based training are listed below. Please, show how often your trainers/teachers use in your training by putting (✓) in one of the boxes in the response scale

No	Instructional Methods/strategies	How often used				
		Always	Mostly	Sometimes	Rarely	Not at all
1	Lecture / Explanation					
2	Demonstration					
3	Question and Answer					
4	Group project					
5	Individual project					
6	Hands on practice					

Instruction III. Factors that may slow down the implementation of outcome-based learning are given below. Please, indicate your agreement or disagreement by putting (✓) in the box according to the following response scale: SA (Strongly Agree), A (Agree), U (Undecided), D (Disagree), and SD (Strongly Disagree).

No	Factors that affect the effectiveness of training	SA	A	U	D	SD
1	Tendency to the traditional lecture method in the course of training					
2	Number of trainees in class					
3	Lack of a clear picture and objectives about outcome-based training prior to actual training					
4	The physical set up and equipped of class/ workshop/ laboratory					
5	Knowledge on the relationship between outcome-based training and assessment					
6	Readiness of Institutional officials to facilitate the training and motivate the trainees					
7	Organization and efficiency of the library					

በአዲስ አበባ ዩኒቨርሲቲ
በስነ-ትምህርት ኮሌጅ
የቢዝነስ ዲፓርትመንት

በቴክኒክና ሙያ መደበኛ መርሃ ግብር በመሰልጠን ላይ ባሉ ሰልጣኞች የሚሞላ መጠይቅ

የዚህ መጠይቅ ዋና ዓላማ በአርሲ ዞን ውስጥ በሚገኙ የመንግስት የቴክኒክና ሙያ ማሰልጠኛ ተቀማት ውስጥ ወጪትን መሰረት ያደረገ ስልጠና (Outcome-based training) ፕሮግራም አተገባባር ያለበትን ሁኔታ በማጥናት ጠንካራ አሰራሮችን እንዲሁም የገጠሙ ችግሮችን በመለየት የመፍትሔ ሀሳቦችን ለመጠቀም ነው።

የመልሱ ትክክለኛነትና በጥንቃቄ ተሞልቶ መመለስ ለጥናቱ ወጪታማነት ከፍተኛ አስተዋጽኦ አለው።

ማሳሰቢያ

1. ስምህን / ሽን መፃፍ አያስፈልግም
2. ትክክለኛ መልስ በምትሰጥበት/ዩበት ጊዜ
 - ሀ. ትክክል ነው ያልከዉን/ ሽዉን ምርጫ ፊደል ክብብ/ቢ
 - ለ. ለክፍት ቦታዎች ተገቢዉን መልስ በመፃፍ መልስ/ሽ
3. መጠይቁን ሞልተህ/ሽ እንደጨረስህ/ሽ ወዲያዉኑ ለሰጠህ/ሽ ሰዉ መልስ/ሽ

ለ. የስልጠናው ትኩረት የሙያውን ብቃት ማስጨበጥ ላይ እንጂ ስልጠናው ለሚወስደው

ጊዜ አይደለም

ሐ. “ሀ” እና “ለ” መልስ ናቸው

5. ስልጠና ከመጀመርያ/ሽ በፊት በአሰልጣኝ/ሽ ስለ አሀዳዊ ብቃት (Unit Competence) ተገልጾልሁ/ሻል?

ሀ. አዎን

ለ. አልተገለጸልኝም

ሐ. እርግጠኛ አይደለሁም

6. ለጥያቄ “5” መልስ/ሽ “ሀ” ከሆነ የተገለጸህ/ሽ ከሚከተሉት የትኛው ነው የተገለጸው? (ከአንድ በላይ መልስ መስጠት ይቻላል)

ሀ. የየስልጠናው ገቢራዊ ውጤት (Learning outcomes) ምን ምን እንደሆነ

ለ. የየስልጠናው ገቢራዊ ውጤት (Learning outcomes) እንዴት እንደሚመዘን

ሐ. እያንዳንዱ ሰልጣኝ በስልጠናው መሰረት መስራቱንና አለመስራቱን በእድገት ማያሳይ ቻርት

/Progress chart/ በየጊዜው ለሰልጣኙ እንደሚገለፅ

7. በአንተ/ቺ ምልክታ ውጤትን መሰረት ባደረገ ስልጠና ላይ እያንዳንዱ ሰልጣኝ በስልጠናው መሰረት እየሰራ ስለመሆኑ የአሰልጣኝ/ሽ ሰልጣኞችን የመከታተል ሁኔታ ሀ. ከፍተኛ ነው ለ. መካከለኛ ነው ሐ. ዝቅተኛ ነው

8. በስልጠና ሞጁሉ መሰረት ሰልጣኙ የሙያውን ክህሎት /Skills/ እንዲጨብጥ የሚያስችሉ የስልጠና መሳሪያዎች/ማሽኖች በአንተ/ቺ እምነት ያሉበት ደረጃ?

ሀ. በጣም በቂ

ለ. በቂ

ሐ. በቂ አይደለም

9. በአንተ/ቺ ምልክታ በዚህ ማሰልጠኛ ተቀምጦ/ኮሌጅ አሰልጣኞች/አስተማሪዎች በስልጠና አሰጣጥ ላይ ትኩረት የሚያደርጉት በምን ላይ ነው? (ከአንድ በላይ መልስ መስጠት ይቻላል)

ሀ. ወድድራዊ (Competitive) ስልጠና ላይ

ለ. ግላዊ (Individual) ስልጠና ላይ

ሐ. ቡድናዊ (Group) ስልጠና ላይ

10. በአንተ/ቺ አስተሳሰብ በመሰጠት ላይ ያለው ውጤትን መሰረት ያደረገ ስልጠና ለስልጠናው በነበረህ/ሽ ግምት ነው?

ሀ. አዎን

ለ. አይደለም

11. ለጥያቄ “10” መልስ/ሽ “ለ” ከሆነ ለምን? (ከአንድ በላይ መልስ መስጠት ይቻላል)

ሀ. በአብዛኛው ስልጠናው ቲዎሪ ስለሆነ

ለ. የስልጠና ማቴሪያሎች በስልጠና ሞጁሉ መሰረት አለመሆን

ሐ. የስልጠና ፋሲሊቲዎች እጥረት መኖር

መ. ለተግባራዊ ስልጠና የአሰልጣኙ ፍላጎት ዝቅተኛ መሆን

12. በማሰልጠኛ ተቀሙ/ኮሌጁ ሀላፊዎች በአንተ/ቺ ምልክታ ዉጤትን መሰረት ላደረገ ስልጠና (Outcome-based training) የሚሰጡት ትኩረትና ክትትል ሀ. በጣም ክፍተኛ ነዉ ለ. ከፍተኛ ነዉ ሐ. መካከለኛ ነዉ መ. ዝቅተኛ ነዉ

13. አሰልጣኝህ/ሽ የስልጠና ዉጤትህ/ሽ ላይ ክትትል የሚያደርጉትና የሚገመገሙት በምን ዘዴ ነዉ? (ከአንድ በላይ መልስ መስጠት ይቻላል)

- ሀ. በተግባር ስራ ላይ እያለሁ በመጎብኘት
- ለ. በየጊዜዉ የስራዬን ዉጤት ደረጃ የሚያሳይ ሪፖርት በመጠየቅ
- ሐ. የስራዬን መጨረሻ ዉጤት በማየት

14. ዉጤትን መሰረት ያደረገ ስልጠና (Outcome-based training) ምዘና (Assessment) በአንተ/ቺ ግንዛቤ የሚካሄደዉ ምን ላይ ነዉ? ሀ. በስራዬ ሂደት ለ. በስራዬ ዉጤት ሐ. “ሀ” እና “ለ”

15. በአንተ/ቺ አስተሳሰብ ለተግባራዊ ስልጠና /Practical training/ የሚሰጥህ/ሽ ጊዜ አይደለም ሀ. በጣም በቂ ነዉ ለ. በቂ ነዉ ሐ. በቂ

16. በማሰልጠኛ ተቀምህ/ሽ ዉስጥ ዉጤትን መሰረት ያደረገ ስልጠና (Outcome-based training) በተሻለ ሁኔታ እንዳይተገበር ያደረጉት ዋነኛ ችግሮች ምንድን ናቸዉ ብለህ/ሽ ታስባለህ/ሽ?

17. ዉጤትን መሰረት ያደረገ ስልጠና (Outcome-based training) በጥሩ ሁኔታ እንዲተገበር ምን መደረግ አለበት ትላለህ/ትያለሽ?

መመሪያ ሁለት

ወጤትን መሰረት ያደረገ ስልጠና (Outcome-based training) ለመስጠት አሰልጣኝ/ሽ የሚጠቀሙባቸው ማሰልጠኛ ዘዴዎች ከዚህ በታች ተዘርዝረዋል። ይህን (✓) ምልክት በመጠቀም አሰልጣኝ/ሽ የማሰልጠኛ ዘዴውን በምን ደረጃ እንደሚጠቀሙበት ቀጥሎ በተቀመጠው ሠንጠረዥ ውስጥ አስቀምጥ/ጭ

ተቁ	የማሰልጠኛ ዘዴዎች	የአጠቃቀም ሁኔታ				
		ሁልጊዜ (Always)	በአብዛኛው (Mostly)	አንዳንዴ (Sometimes)	ወሰን ጊዜ (Rarely)	ጨርሶ አይጠቀሙም (Not at all)
1	ገለፃ					
2	ሠርቶ ማሳየት					
3	ጥያቄ ና መልስ					
4	ግሩፕ ፕሮጀክት					
5	ግል ፕሮጀክት					
6	ተግባር ሥራ					

መመሪያ ሦስት

ወጤትን መሰረት ያደረገ ስልጠና (Outcome-based training) በሚፈለገው ደረጃ እንዳይተገበር ምክንያት ሊሆኑ የሚችሉ ጉዳዮች ከዚህ በታች ተዘርዝረዋል። ይህን (✓) ምልክት በመጠቀም የስምምነት-ህን/ሽን ደረጃ ቀጥሎ በተቀመጠው ሠንጠረዥ ውስጥ አስቀምጥ/ጭ

ተቁ	ምክንያት ሊሆኑ የሚችሉ ጉዳዮች	በጣም እስማማለሁ	እስማማለሁ	እርግጠኛ አይደለሁም	አልስማማም	በጣም አልስማማም
1	በአብዛኛው በስልጠና ሂደቱ ውስጥ ቲዮሪና ገለፃን የመጠቀም አዝማሚያ					
2	በክፍል ውስጥ የሰልጣኞች ብዛት					
3	ስልጠና ከመጀመሩ በፊት ወጤትን መሰረት ያደረገ ስልጠና (Outcome-based training) ዓላማን በግልፅ አለመረዳት					
4	የዎርክሾፕ ወይም ላቦራቶሪ አሠራር ና ተገቢነት ባላቸው የስልጠና መሳሪያዎች/ማሽኖች አለመማላት					
5	ወጤትን መሰረት ባደረገ ስልጠና (Outcome-based training) እና ወጤትን መሰረት ባደረገ ምዘና (Assessment) መካከል ያለውን ዝምድና አለማወቅ					
6	የማሰልጠኛ ተቀምጦ ሀላፊዎች ወጤትን መሰረት ላደረገ ስልጠና ተግባራዊነት ሁኔታን የማመቻቸት እና ሰልጣኞችን ለስልጠናው ማነቃቃት ላይ ዝግጁ አለመሆን					
7	የቤተ-መጻሕፍት አደረጃጀትና አገልግሎት አሰጣጥ ብቃት ማነስ					

**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
COLLEGE OF EDUCATION
DEPARTMENT OF BUSINESS EDUCATION**

**Interview guides to be made with Deans and Directors of sample TVET
College/Institute**

1. Have you ever had any training on outcome-based training delivery system?
2. To what extent trainers are competent /qualified/ to provide an outcome-based training?
3. Do you think that the materials, tools and equipment and other facilities essential in the delivery of outcome-based training are ready according to resource requirements of unit competences of occupational standards to support occupational learning processes and thus helping to achieve the desired learning outcomes?
4. How do you see the practices of outcome-based training in your college/institute?
5. Do you think your college/Institute have allocated adequate budget for purchase of materials, equipment and resources necessary for conducting practical training?
6. What are the feelings of trainers regarding to an outcome-based training programs?
7. How do you evaluate support of TVET Agency, Zone TVET office made to your college/institute in implementing outcome-based training?
8. What problems do you encounter so far in practicing outcome-based training?
9. Would you suggest how it could be set on in order to improve the future practice of outcome-based training at your College/Institute?
10. What are the major factors that you think would affect outcome-based training delivery system in your college/institute in the future?

**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
COLLEGE OF EDUCATION
DEPARTMENT OF BUSINESS EDUCATION**

**Observation Checklist for Outcome-Based learning at Classroom,
Workshop, and Laboratory**

I. General

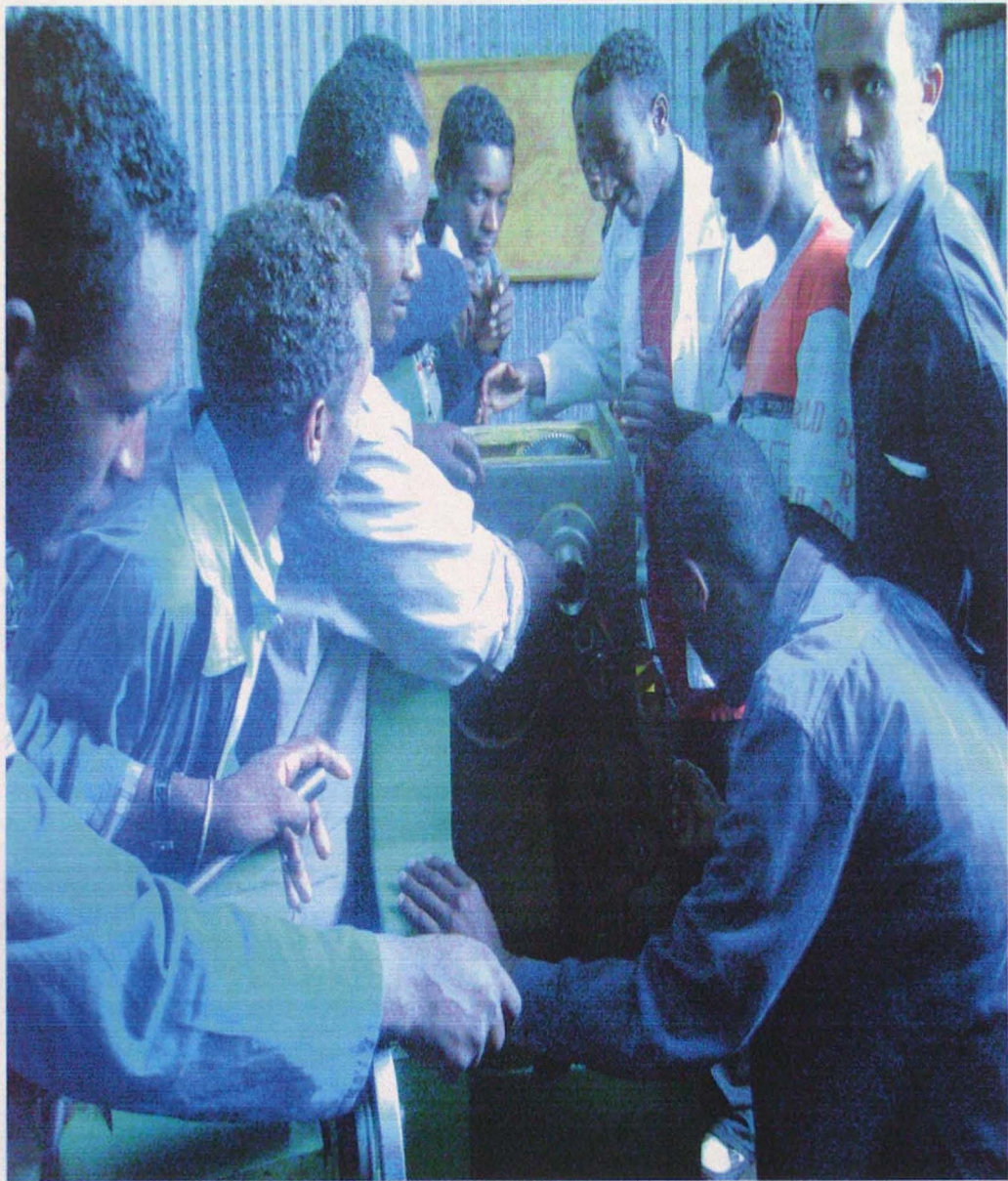
1. Training course (being observed) _____
2. No. of trainees in the class/workshop: Male _____ Female _____ Total _____
3. Seats / training arrangement _____

II. Details in classroom / workshop/ laboratory instruction: Tick Y (Yes), if the appropriate activity is observed or demonstrated or tick N (No) if it is not observed

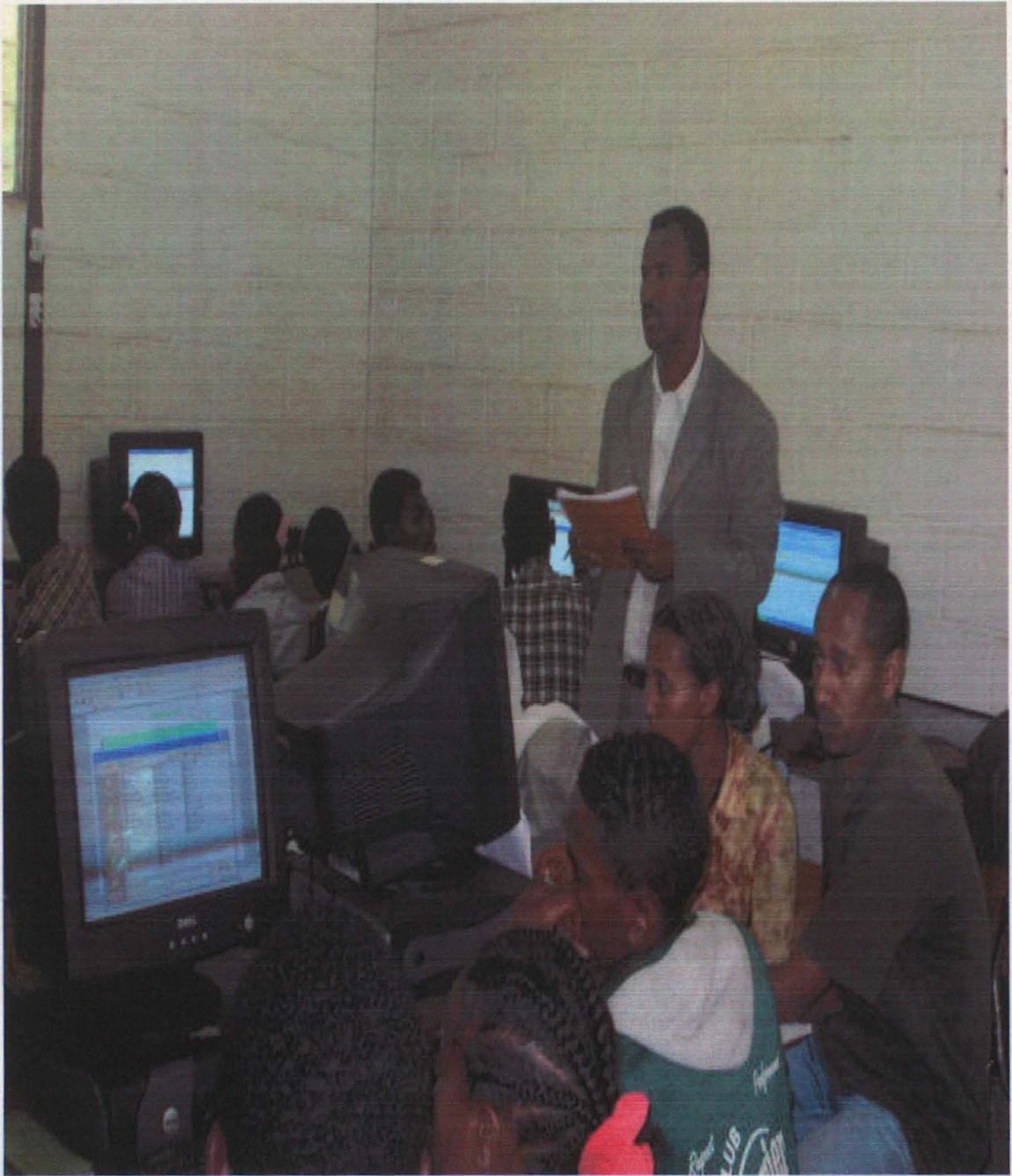
Items	Y	N	Remark
I. classroom / workshop/ laboratory			
Is classroom / workshop/ laboratory suitable in terms of seating, heating, lighting, availability of training resources, etc?			
II. The Instructional process			
Does the instructor:			
- Make sure that trainees know what is expected of them by way of preparation?			
- Arrange classroom / workshop/ laboratory as per training requirement?			
- Encourage all trainees in individual and group work in Outcome-based training?			
- Intervene in the trainees work appropriately to encourage the progress, to take corrective measures task performance			



Auto mechanics - A



Auto mechanics - B



Information Technology (IT)



Hotel Management

**ADDIS ABABA UNIVERSITY
LIBRARIES
P.O. BOX 1176
F-4 ADDIS ABABA ETHIOPIA**