ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES
PROFESSIONAL AND VOCATIONAL EDUCATION PROGRAM UNIT

SUCCESSES AND CHALLENGES IN IMPLEMENTING OCCUPATIONAL ASSESSMENT AND CERTIFICATION PROGRAMS IN MEKELLE ZONE OF TIGRAY REGIONAL STATE

BY
HAYELOM KIROS TEKA

JUNE 2011
ADDIS ABABA

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A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT TO THE REQUIREMENTS FOR THE DEGREE OF MASTER'S OF ARTS IN MANAGEMENT OF VOCATIONAL EDUCATION

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ACRONYMS

AC	Assessment Center
ACP	Assessment and Certification Programs
AT	Assessment Tool
CC	Competence Certificate
COC	Center of Competence
CAC	Competence Assessment and Certification
CS	Competence Standards
IACP	Implementation of Assessment and Certification Programs
NQC	National Qualification Certificate
OAC	Occupational Assessment and Certification
OS	Occupational Standard
RCC	Recognition of Current Competence
RPL	Recognition of Prior Learning
TVET	Technical and Vocational Education and Training
TWG	Technical Working Group

Abstract

The purpose of the study was to determine the successes achieved and the challenges faced during implementation of the assessment and certification programs carried out by COC during the past two consecutive years (2009 and 2010) since its commencement. The study area was Mekelle Zone of Tigray Regional State. For the execution of this study, both quantitative and qualitative data were collected through questionnaires, interview, FGD, and document review. In this endeavor, Questionnaires were distributed to those TVET teachers and graduates who took occupational assessment. Interviews were conducted with assessment center coordinators and TVET bureau officials. FGD was held with the COC experts including the director. For data analysis, tabulated frequency number and percentages were employed. The major challenges revealed by the study include the lack of independency and inappropriate organizational structure of the regional COC; inadequate facilities of ACs; shortages of financial, material, and human resources in COC; poor standard of assessment tools; and inefficient assessors. The status of IACP was low. However, there were some successes achieved the most important of which was COC became a potential to create competent citizens who can contribute for the development of their country by encouraging trainers, trainees and other citizens to upgrade their knowledge and skill according to the required standard. It was concluded that though there were few successes achieved, there were so many challenges that impeded the effective implementation of the programs. At last, based on the findings of the study, some possible suggestions were forwarded which include making the regional COC independent of TVET and improving its organizational structure; capacitating the existing ACs and striving to get others; empowering COC and strengthening its human, financial and material resource capacity; preparing standardized assessment tools in all occupations and levels; and Assigning competent, trained and experienced and committed industry assessors.

CHAPTER ONE

THE PROBLEM AND ITS APPROACH

1.1. Background of the Study

Different research findings and experiences show that the most important factors for the social, political, and economic development of nations are the skill and knowledge of people. The development of people's skill and knowledge is again determined by the extent to which education and training is provided. Thus, it may be difficult to think of economic development without improving the quality of human resource, which can only be achieved through expanding education and vocational training.

The history of vocational education is as old as the history of human beings. Vocation might have started when man started to make his living by producing products in different ways. Here in Ethiopia, Wanna (1998) documented as up to the end of twenty century:

> *Vocational education was suffering the stigma attached to it. Even in societies long before the coming of the western type of education to Ethiopia, the heterogeneous societies of the country had their own craftsmen and artisans who were traditionally trained through parent-to son and on-the-job coaching. This father-to-son and mother-to-daughter type of on- the-job-training system was the basic source for the skilled people such as potters, blacksmith, weavers, tanners and many others.*

Vocational education in its formal form comes into being when man began to live together and started to produce for his basic needs. Knowledge continued to be passed from father to son verbally and was meager in quantity. During this period, the process of learning was spontaneous imitations of skills (Abramson and Cohen, 1979).

When vocational education and training was introduced to the country, it has the purpose of preparing individuals for the world of work. Moreover, vocational education and training aimed at helping the individuals develop desirable and effective work habits and

acquire necessary knowledge and skill of an occupation to enter and make progress on it and thereby contribute for the economic and social development of the country.

The development of trained labor force makes significant contribution to national development by facilitating the application of science and technology for transformation of material into goods and services (UNESCO, 1965:15)

In line with this, MOE (2010) asserts that the TVET system is to be wage and self employment-oriented, demand-driven and outcome-based, and thus appropriate to address the development needs of the Ethiopian economy. It reflects an important paradigm change during recent years that puts quality and relevance of TVET as its first priority. An outcome-based TVET system creates ways for the fair recognition of the wide range of formal, non-formal and informal training and learning existing in Ethiopia, hence opening access to qualifications for previously neglected target groups. This will increase their chances of an occupational career and create options for further education and training. The National TVET Qualifications Framework (NTQF) formulates the overall frame for the outcome-based TVET system.

Understanding the actual skilled labor demand of the present and future market is important to adjust the education system in general and that of TVET in particular so as to provide proper and demand oriented trainings that could contribute towards the national economic and social development. Hence, the prime objective of the TVET system is to achieve goals of trained manpower requirements of the economy and eventually to meet the national development goals.

To realize these goals, special emphasis was given to the TVET program. As a result, high power capacity building was established under the prime minister's office; to search the way and means of solving the problem. Accordingly, a strategy was formulated and implementation of expanded, diversified and integrated TVET system started in 2001/2002 academic year when over 50,000 TVET trainees (including agriculture) were enrolled in the 169 governments and non government institutions, using new curriculum and modalities of trainings (Teklehaymanot, 2002:7).

Until recent time many certifications and diplomas are being awarded haphazardly by various TVET institutions: public, private and non-governmental. Nobody can tell the quality and standard of all those certificates and diplomas and how they compare with each other. All these need to be harmonized and centralized to ensure standardized knowledge, skill and attitudinal competencies of formal, non-formal and informal TVET graduates and hence to match with the local and national labor market demand and the ever changing global technology.

The overall objective of the new national TVET strategy is to create a competent, motivated, adaptable and innovative workforce that plays pivotal roles in the poverty reduction and socio-economic development efforts of the country. This is achieved through facilitating demand-driven, self-employment oriented, relevant and outcome-based TVET at all levels. That is why the Ethiopian TVET system is reorganized into an outcome-based system. This means that identified competences of the labor market that are described in the occupational standards are the final benchmarks not only for training and learning activities but also for the assessment of competences and certification as well. Moreover, building an outcome-based TVET system creates access for equal recognition of competences acquired through whatever the means and ways of being competent (MOE, 2010).

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 (MOE, 2008).

Occupational/competence assessment and subsequent certification is the main feature of the outcome-based TVET system to verify individual occupational competences. It 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. Both occupational assessment and a unit of competency assessment will take place at accredited assessment centers under the responsibility of nationwide Centers of Competence (COC) and through independent assessors who will be appropriately qualified. If a candidate has successfully passed the assessment, he/she will receive a nationally recognized certificate (NC) for each occupational level of qualification or a competency certificate (CC) for a unit of competence (MOE, 2010).

1.2 Statement of the Problem

The TVET Center of Competence (COC) was established and became functional as of 2009 for implementing occupational competence and certification program throughout the country. According to the annual report of MOE (2010), there are currently about 246 different areas of TVET. At present, there are six centers of competence (COC) in the country namely, Tigray COC, Amhara COC, Oromia COC, SNPN COC, Diredawa COC, and Addis Ababa COC. Within these six Centers of Competencies, there are about 194 accredited assessment centers and 2318 core assessors. During the 2002 E.C Ethiopian budgetary year, more than 4000 TVET teachers were assessed nationwide in different occupations and altogether including these teachers, a total of 38,158 candidates were assessed out of which about 10,875 (28.5%) were found to be competent.

Like many other regions of Ethiopia, Tigray COC was established and started to implement competence assessment and certification program around the mid of 2009. According to the annual reports of Tigray COC, teachers from governmental and nongovernmental TVET and TVET graduates both employed and unemployed with qualification ranging from certificate to degree were assessed in 45 assessment centers found in the seven zones of the region in various areas. During 2001 - 2002 E.C. a total of 1584 teachers and 5500 graduates were assessed out of which about 835 (52.71%) and 1103 (20.05%) respectively were found to be competent. [*Note that a candidate may be assessed two times or more and could be counted each time in the total number of assessed candidates.]*

The researcher found it necessary to undertake a study that deals with COC for some important reasons:

Firstly, since its commencement, no researches were done on the issue of COC anywhere else in the country, in which case the researcher could have borrowed related ideas for his study so that focus could have been given to those aspects that are either not yet researched or require further investigations. Nevertheless, as the researcher was working in COC, he decided to start conducting research on the issue mainly by making use of his experience.

Secondly, as stated in the assessment directive of MOE, in order to undertake effective assessment, assessors themselves must have sufficient industry exposure and must be assessed and become competent in the area they are supposed to assess other candidates and subsequently trained on techniques and strategies of assessment. The researcher had doubt whether the assessors fulfilled the requirements and conducted the assessment as intended because he perceived candidates' dissatisfaction on the assessment procedures and results.

Thirdly, assessments should be carried out in assessment centers that possess the necessary material and human resources. In the Regional State there are so far about 45 assessment centers selected from industries and private and governmental training centers. Nevertheless, beneficiaries were complaining about the effectiveness and availability of the necessary equipments, machines, supplies, tools, and other facilities in these centers for assessment.

Fourthly, the system should allow progressive assessment by qualification level, starting from the lowest available qualification level up to the highest level. Therefore, standardized assessment tools for all levels of the required areas should be available. However, the researcher noticed many customers of COC complaining about this issue.

Fifthly, to make the assessment and certification programs valid, reliable, and hence trusted by the industries (employers), there must also be competent and committed human resource in COC; independent organizational structure of COC; adequate

financial and material resources of COC; and stakeholders' involvement in COC. Nonetheless, as education and training expert in the region, the researcher had real doubt whether the necessary resources and supports are in place for implementation of the programs. Why this is not happening could obviously attract those who have keen interest in improving the quality and relevance of TEVT trainings.

Finally, though it might be difficult to speak about the trends of COC over long period of time mainly because of its recent commencement, to the knowledge of the researcher, no attempt was made to look into the status and challenges that are being encountered in implementing the assessment and certification program of COC in Mekelle Zone of Tigray Regional State. Dealing with this and other similar issues of COC in the Region/Zone helps to understand what is actually going on and what has to be done to resolve the ongoing, new, and competitive challenges in order to meet its objectives.

The researcher had a strong conviction that to arrive at the perceptions and suggestions of assessed candidates and other COC stakeholders about the issue will greatly help to identify the successes achieved and the problems faced by COC during implementation of assessment and certification programs.

In so doing, the researcher used the following basic research questions to guide him as a frame of reference for the study:

- What is the status of the implementation of occupational assessment and certification in Mekele Zone of Tigray region?
- What were the major successes of Tigray COC in implementing the occupational assessment and certification programs during 2009 and 2010?
- What were the main challenges faced byTigray COC in implementing the occupational assessment and certification programs during 2009 and 2010?

1.3 Objectives of the Study

Currently, the need to assure the quality of TVET in Ethiopia is becoming a crucial issue in order to create competent labor force which can effectively contribute in the socio-economic development activities. This could only be realized through competence assessment and certification program.

In agreement with this statement the Ethiopian MOE (2010) stated the fact that the quality of outcome-based TVET delivery will be measured through occupational assessment. This occupational assessment does not only cover candidates graduating from TVET institutions but whoever feels competent to perform according to the industry requirements as stipulated in the competence standards, regardless of the way the person acquired the competence/s, as well.

In this regard, the importance of occupational/competence assessment in TVET quality assurance has become unquestionable. Accordingly, the need to improve and strengthen the implementation of assessment and certification programs being carried out by COC throughout the country is so crucial in order to achieve the required quality standard. Since this program is newly being introduced in our country it needs to be researched to contribute for its effective implementation and hence contribute for the country's socio-economic development.

The general objective of this study is therefore, to identify and investigate the successes achieved and challenges encountered during the implementation of occupational assessment and certification programs in Tigray COC and hence to recommend possible solutions to the problems for their timely remedial actions and to strengthen the positive sides if any in order to maximize the benefits from the implementation of assessment and certification programs of COC.

Following are the specific objectives of the study:

- To examine the availability of the necessary material and human resources in assessment centers.
- To examine the availability of effective assessors
- To examine the effectiveness of assessment administration activities of the COC.
- To examine the effectiveness of the assessment tools.
- To examine the effectiveness of certification system in Tigray COC.
- To investigate the problems of COC associated with financial, material and human resources during implementation of assessment and certification programs

in Mekele zone of Tigray Regional State and therefore, to give feedback for their improvement.

1.4 Significance of the Study

Successful implementation of the occupational /competence assessment and certification programs help to come up with the intended profile of middle level skilled labor force in various fields of occupations capable of responding to the local, national or international labor market demand and thereby contribute for effective socio-economic development. Therefore, the result of the study may help to:

- provide relevant information to decision makers about the strength and weakness of the implementation of occupational assessment and certification programs in relation to their objectives.
- enrich the existing limited research literature in the field.
- pose issues that may initiate other researchers to fill the gaps in the area.
- identify crucial factors that positively or negatively affect the implementation of occupational assessment and certification and recommend feasible ways of enhancing strengths and improving weaknesses.

1.5 Delimitation of the Study

The study has been designed to examine the status and challenges of implementing competence assessment and certification programs of COC. In so doing, it was delimited to the investigation of the implementation of the programs in Business, Health, Electricity/Electronic, Manufacturing, Automotive, construction and ICT sectors. The main reason for delimiting the current study to these sectors was due to the fact that the sector areas chosen comprised the largest number of graduates and trainers in the zone. Currently, occupational assessment is being conducted nation-wide in the accredited assessment centers (ACs) of government, private and non-governmental training institutions and industries. In Tigray, there were about 45 such occupational assessment centers in the seven zones of the region. Taking into account the wider geographical area, logistic and time constraints the researcher has delimited his study to Mekelle zone of Tigray Regional State.

1.6 Limitations of the Study

Since the study on the issue was made for the first time, the researcher was faced by shortage of reference materials. However, he managed it after his continuous endeavor to get the relevant sources of information from any direction. One opportunity was the researcher's three years work experience in COC. As a result, he identified certain problem areas and hence make a research design that he think are appropriate based on his personal experience on the issue; by making continuous group discussion with his local and Pilipino colleagues who are experts of COC in the region; and based on the available relevant documents and literature review. It is the researcher's belief that further and more in-depth study has to be carried out in order to provide plausible answers to problems untouched in this study. For instance, the extent to which the already identified problems hinder the implementation of assessment and certification endeavors should further be studied in relation to each TVET areas and to each COC in different parts of the country.

1.7 Definitions of Terms

Assessor – An individual who meets the required qualifications to be authorized by the Center of Competence to assess whether a candidate possess certain Competences or all the competences defined by an occupational qualification level (MOE, 2010).

Assessment- A systematic process by which as many data as possible are gathered and used to evaluate important elements involved in training to know whether objectives are achieved or not (Good, 1973:43). Assessment is the process of gathering evidence about a learner's prior and current competence regardless of how they were achieved and making judgments using pre-determined criteria which is based on the OS (MOE, 2010).

Assessment Center (AC) – An establishment officially authorized by the Center of Competence to manage the assessment of candidates for certification (MOE, 2010).

Assessment Tool (AT) – An instrument to be used by the Assessor in the process of collecting evidences that will support his judgment of whether the candidate has possessed the competence/s required by the qualification level (MOE, 2010).

Candidate – An individual seeking recognition of his/her competences to acquire a certification (MOE, 2010).

Certification – A formal process of recognizing that an individual is qualified in terms of the required knowledge, skills and proper work attitudes based on the occupational standards set by industry (MOE, 2010).

Center of Competence (COC) – An autonomous governmental organization delegated by the Federal TVET Agency to properly and effectively implement the Assessment and Certification Programs (MOE, 2010).

Competence – The possession and application of knowledge, skills and proper attitude to the standard of performance in the workplace; to be a productive and adaptable entrepreneur, employee or self-employed, and thus to contribute to personal empowerment in economic and social development. It is the capacity to perform a certain task in wage labor and self- employment. Competence is the outcome of TVET (MOE, 2010).

Occupational Assessment – The process of collecting evidence and making judgments on whether competence has been achieved .It is accessible to everybody who has acquired the competencies defined in the occupational standards, irrespective of whether she/he has learned through formal, non-formal or informal TVET (MOE, 2010).

Occupational Standard – A standard defined by experts of the world of work indicating the competences that a person must possess to be able to perform up to the expected level and be productive in the world of work. It is the basis against which an individual's performance is assessed through occupational testing (MOE, 2010).

1.8 Organization of the Study

The paper consists of five chapters. The first chapter deals with the problem and its approach. Review of related literature is presented under the second chapter. The third chapter deals with the research design and methodology. The fourth chapter deals with presentation, interpretation and analysis of the data. The last chapter deals with summary of the major findings of the study, conclusions and recommendations.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

2.1 The Need for Technical and Vocational Training and Education

Many research findings and the existing global situations show that with the emergence of globalization there is a noticeable shift in demand for types of workers, with present trends clearly in favor of highly-skilled technicians and professionals. In this new environment, organizations have to strive for greater competitiveness, and the concept of life-long employment no longer holds. If a worker is unskilled, he or she no longer adds value to the organization. It means, therefore, that individuals have to enhance their life-long employability by becoming life- long learners. This requires the worker to continually upgrade him- or herself to stay relevant, developing attitudinal skills which include creativity, flexibility, self-reliance, problem-solving and an interest in life-long learning.

TVET program is part of the education system that is designed to equip students /trainees with the knowledge, skill, attitude and capacities required to make them ready for the world of work. Hence, the program is decisive in developing human resources that are needed to realize the national economic and social development goals.

In line with this idea, Middleton, Zederman and Adams (1996: 1) stated that both common sense and economic research support the idea that the quality of nations' workforce is important to economic and social development.

Technical and vocational education and training (TVET) is the systematic and orderly transmission of knowledge, skills and values to develop a workforce that is able to enhance productivity and sustain competitiveness in the global economy. It encompasses the ability to accelerate economic growth, provide marketable labor supply, minimize unemployment and underemployment, and reduce poverty. Balogh as cited by Tilak (1994) stated that: "As a purposive factor for rural development, prosperity and progress, education must be technical, vocational and democratic." It goes without saying that

TVET is both democracy and power. It is democracy because it liberates the learner or the trainee from the bondage of ignorance and illiteracy. It is considered power because it brings technological superiority thereby bringing competitiveness and productivity to a country.

Moreover, the development of trained lobour force makes a significant contribution to national development by facilitating the application of science and technology for transformation of material resources into goods and services (UNESCO, 1965:15)

In line with this, Wanna Lakka (2000) stated as:

> *In many well planned and organized national system of education vocational and technical education at secondary school level will have one major objective... to become terminal and prepare a student for the world of work or for some vocational in life indeed, this is, the ultimate goal of TVET.*

Similarly, Atchoarena and Andere (2002) documented as:

> *The prime objective of TVET policies that have been pursued by some African countries aimed at providing managers and skilled labour force which these countries need urgently to support the growth of the modern sector, TVET therefore was need to strengthen the acquisition of knowledge and skills required by most manufacturing and service industries and to give the labour force more flexibility to meet the changing requirements of the work place.*

The general aim of training is to improve job performances by extending knowledge, inculcating skill and modifying attitude, so that, individuals can work in most economical, efficient, satisfactory and satisfying way. Training must satisfy real needs (Bennet, 1969:113).

In Ethiopian context, the two fundamental objectives of providing TVET in the country are to enhance, the agricultural development led industrialization of the country by training and supply of new generation of quality middle level skill manpower to the industrial service and construction sector, and contribute to the development of industrial construction and service economies through qualitative and quantitative capacity and

development of TVET and thereby improve the supply of level skilled manpower (MOE, 2002).

In most countries, TVET systems are primarily responsive to the requirements of industry, although the balance of influence on TVET policy-making bodies between government, industry and employer organizations, education and training providers, and employees varies. The tightness of the coupling between qualifications and the labour market varies. In many Western European countries, the coupling is tight. For an individual to practice at a given level in a professional or vocational field, they must have a qualification at a specified level within that field (Allen and van der Velden, 2005; van der Velden and Wolbers, 2008). In other countries, this linkage between the labour market and qualifications is much weaker and differs by occupation and level. Strong linkages provide some level of quality assurance for employers, industries and possibly consumers, while the weaker linkages provide a degree of flexibility in the labour market. The degree of coupling influences the level of control exercised by licensing and accrediting bodies in course content and assessment requirements (Karmel, Mlotkowski, and Awodeyi, 2008).

With regard to this, the Ethiopian MOE (2002) asserts that no matter how vast its natural resource might be, a country can't achieve economic growth without trained and skilled manpower. In a conscious attempt to implement this view, Ethiopia modeled formal schooling and vocational training on the experience of developed countries hoping that it will contribute to greater economic growth.

Realizing the need for skilled human power, it has been envisaged in the MOE (2006) as:

> *Technical and Vocational Education and Training (TVET), in Ethiopia seeks to create competent and self-reliant citizens to contribute to the economic and social development of the country, thus improving the livelihoods of all Ethiopians and sustainably reducing poverty.*

In summary, with the emergence of globalization, competition has had a dramatic impact on the economy. There has been a significant economic crisis in many countries of the world. Several firms have down-sized, and, consequently, there has been a dramatic loss of jobs. As a result of worldwide competition, employers, educators, trainers, individuals

and other stakeholders have had to rethink the approach to technical and vocational education and training. In this regard, competency-based training has come into effect as a solution to alleviate to the problem of skill mismatch of the workers with the ever increasing technological advancement. It has become more important than at any time in our history for individuals to obtain both academic and occupational (professional) certification. To make their labor force gain current qualifications and remain competitive, governments continue to emphasize skills upgrading, training and life-long learning through TVET. Of course, introducing and properly implementing assessment and certification programs can increase the acceptability of the value of TVET qualifications by checking whether the trained workforce meet local, national or global standards.

2.2 Modes of Training

Researches and experiences show that different countries are recognizing and applying different ways of technical and vocational training. Mode of training is varied mainly based on the type of institutional setting in which training could be acquired.

Vocational and technical skills can be acquired in many ways. Public pre-employment training is only one way to enter skilled job. In modern sector, skills are obtained from initial and in-service training offered by public and private organizations; and wage employments are used as a means of providing skills to many informal sector entrepreneurs. Training by private and voluntary organizations is a second alternative. Farming skills many obtained from agricultural extension; agricultural schools and colleges and youth training programs also contribute to obtain farming skills. In many countries, rural and urban informal sectors obtain their skills through traditional apprenticeship. These all alternatives are included in a nation's capacity for training labor forces required to realize national development goals (Middlton, Ziderman and Adams, 1996:25, 27)

Generally, in many countries TVET can be located in one or more of the following three distinct institutional settings. These are school based trainings; post school (Enterprise Trainings) and work base (Apprenticeship Training) (Husen and Wait, 1996:6245).

In Germany there is different mode of training known as Dual vocational Training. The dual training system has developed in Germany during the post war period and internationally acclaimed as an advanced version of apprenticeship (Lauglo, 1993:36)

The German Dual vocational Training is a mode of training in which the firm and the vocational training school share the responsibility in training young people with most appropriate job qualification, the former offers practical training while the latter provides specific or general education (Schwarz, 1986:2).

In this model of training the school and the firm are complementary to each other, not only due to the sum of the knowledge obtained in the class and the practical skill acquired in the enterprise, but also the constant application of the knowledge acquired. The two milieus reinforce and complement each other so as to produce the best qualified and capable trainee that can be adapted to the world of work (Atchoarena and Delluc, 2002:60)

In summary, mode of training includes formal and non-formal trainings such those being delivered in schools in collaboration with enterprises for different durations and informal trainings such those which could be acquired informally outside schools through ones work life experiences.

2.3 Policy in TVET

High rate of population growth and declining economic growth that causes large number of unemployment and underemployment in rural and urban areas of the developing countries including Ethiopia are the major challenges that need urgent response. To tackle these problems the countries are nowadays formulating and implementing growth oriented policies that focus on available abundant resource such as human resource and land.

To this end Atchoarena and dulluc (2002:54) concluded that « In many countries of Sub Saharan Africa, particularly in French speaking countries, government has placed TVET as a means of supporting the economic and social development of their country. »

Considering the extent of severity of unemployment and underemployment education and training policies are key elements in development (UNESCO, 1993:1).

Therefore, TVET program, as an integral part of education and training policy, plays a significant role in training and retraining the labor force and equip them with the skills, knowledge and attitudes that can help them to respond to changing market economy and to create employment opportunities.

According to Middleton, Ziderman and Adams (1996:254-55), three key questions should be considered in formulating suitable training policy of a country. The questions are:

1. What is the economic context of employment and skill demand?
2. How extensive and effective are the various forms of training?
3. Are current training policies and planning practices able to adjust training supply to changing economic context?

2.4 The Launching of TVET in Ethiopia

Ethiopia has launched new education and training policy since 1994 and in accord to this policy, TVET program started its function few years ago.

In Ethiopia, one finds the formal TVET Programs offered in TVET colleges up to Diploma level, and TVET institutions certificate level. Moreover, there is also the non-formal TVET offered to students who may not have reached the grade 10 entry requirements In addition to the formal and non-formal provision, informal TVET skills development also occurs in informal apprenticeship and on the job training arrangements and employer based professional development activity (MOE, 2008).

The number of TVET institutions providing formal TVET training increases from just 17 in 1996/97 to more than 250 in 2005/06 and enrollment increased from approximately 3000 students to 123, 557 students over the same period. More than 50% of TVET institutions are private providers (MOE, 2007).

Entry requirements for girls are lower than for boys, and participation of girls is just over 50%. Despite massive expansion in the number of TVET providers, with ongoing increase in access in 2005/06 to 2006/07, the JRM (2008) reports that demand for places continue to exceed supply. Reform of the TVET commenced in 2006 with TVET proclamation, continued with intensive planning and development and implementation of an Ethiopian TVET Qualification Framework (ETQF).

According to MOE (2008) the following are identified quality issues in TVET: Too theoretical and unresponsive curriculum to labor market requirements; Insufficient monitoring and maintenance of quality standards; Inadequacy of instructional equipment and materials; TVET teachers are described as professional under qualified; The majority of general education students regard TVET and manual labor as a low status and unattractive alternative; Change management in the TVET sector needs improvement even though the process of implementing the new outcome based curriculum has commenced with the adoption of the new TVET strategy in 2006.

In case of Ethiopia, as the documents of MOE and common knowledge of TVET indicated, the quality of TVET was highly affected by the ineffectiveness of the curriculum, under-qualified trainers, lack of materials and human resources, budget limitation, etc,

In line with this, some of development challenges were explained by MOE (2002) as:

> *In the past, the TVET schools and skills development centers were working under capacity building due to lack of promotion and inadequate funding. Little attention was given to work related practical training; the quality of training was highly affected by the ineffectiveness of the curriculum, under qualified trainers and inefficient funding. Moreover, the needs of the world of work were not defined through participation of stakeholders. Hence, the skill gained from the existing situations could not help the*

> *working force to join the real world of work. This situation finally led the trainees to high rate of unemployment after graduation.*

In agreement with this, the research conducted by Middleton, Ziderman and Adams (1993:14) stated that "vocational training programs in most developing countries like Ethiopia fail to meet the demand of the changing labour market".

In summation, TVE in Ethiopia faced many challenges in the course of its development since it commencement. However, improvements measures have been taken by MOE by identifying the problems. This finally led to make basic reforms in TVET.

2.5 The Present Trend of TVET in Ethiopia

A system is now in place to assure quality in training and assessment. This system allows for life- long learning to take place and for training to respond to the demands of the economy. The objective is to reduce the numbers of uncertified workers by increasing the opportunities for them to be trained and certified to world-class standards, and, thereby enhancing the country's competitiveness in the global environment. By training and certifying a productive labor force, TVET aims to continue playing a vital role in contributing to the prosperity of the country.

Recognizing the past TVET problems, the Ethiopian government took steps to alleviate them. For instance, important reform steps have been introduced after the adoption of the national TVET strategy of the 2002 and the TVET proclamation of 2004.

Reviews of the objectives of the Ethiopian National TVET Strategy and Proclamation introduced were explained as:

> *The overall objective of the national TVET strategy is to create a competent, motivated, adaptable and innovative work force in Ethiopia contributing to poverty reduction and social and economic development through facilitating demand-driven high quality technical and vocational education and training relevant to all sectors of the economy at all levels and to all people in need of skills development.*

Generally in their provision, most countries formulated in one form or another a number of objectives of TVET but the problem is the implementation. In fact in Ethiopia the national TVET strategy aims to create and further develop a comprehensive, integrated,

outcome based and decentralized TVET systems for Ethiopia; create a coherent framework for all sectors and stakeholders in the TVET system; establish and capacitate the necessary institutional set-up to manage and implement TVET in Ethiopia and to ensure quality management system; and improve the quality of TVET (formal and non formal) at all levels and make it responsive to the needs of market, etc.., (MOE, 2006).

According to the education and training policy, the new organization of TVET has a broad based and multi-level foundation. It is based on itself on the analysis of the training needs of the country's economic and social development.

As MOE (2002) noted in the early TVET system, a number of TVET programs at different levels were defined which lead to different certificate levels. The aim of all these programs was not only to train human labour for the development program that the country is in process of implementing, but is also intended to encourage the trainees to create jobs themselves and contribute to the national development effort.

According to UNESCO (1996), TVET programs usually require tremendous amount of budget to run compared to general education. It has been estimated that the cost of one technical school is equivalent to two or three schools offering general education. This high cost of the TVET is mainly due to smaller class size and the needs for expensive equipment facilities and teaching materials. Without such equipment, vocational or technical training yields poor results and the graduates are unable to find jobs. Likewise, in periods of light government budgetary policies, the quality of training will fall and graduates encounter difficulties in securing employment opportunities.

To sum up, a system has been established to execute TVET including policies and strategies. One of the measures taken was changing the governance and structural organization of TVET

2.5.1 Governance of Current TVET System in Ethiopia

TVET is governed at both Federal and Regional level according to the proclamation No 391/2004. At Federal level, the MOE is engaged in developing new policies, strategies, guidelines, occupational standards, assessment initiatives and capacity building activities

in collaboration with the Engineering Capacity Building Program (ECBP). In the regions, responsibility for running the public TVET institutions and accrediting private and NGO institutions rests with TVET bureaus /agencies/ Commission or Education Bureaus depending on the nature and practices of the regions.

In general, improving governance and organizational as well as functional structure of TVET will undoubtedly increase its effective implementation. Nevertheless, this alone was not adequate measure. Hence, there was a need to design a corresponding National TVET Qualification Framework.

2.5.2 The Ethiopian National TVET Qualifications Framework (NTQF)

The principal function of the Ethiopian NTQF is to strengthen mutual trust between the different stakeholders involved. It defines the different occupational qualification levels to be awarded. The levels detail the scope and composition of qualifications and degree of responsibility a qualified person would assume in the workplace.

In line with ,MOE (2010) assert that the NTQF as indicated in the National TVET strategy (chapter 5.1), serves as a Regulatory Instrument for Quality Assurance of TVET, to define the values of qualification and comparability in the view to curb the problem of lack of properly coordinating structure in an environment with a variety of certifications. In addition it establishes and maintains a framework of levels for the development, recognition and award of qualifications based on standards of competence, comprising knowledge, skill and attitude (KSA), acquired by trainees.

To sum up, the Ethiopian National TVET Qualification Framework will facilitate the transfer, transparency, and recognition of qualifications based on training outcomes that are assessed and certified by respective nationally accredited competent bodies. Nevertheless, this in turn calls for having a paradigm shift of TVET from its traditional form to the newly introduced outcome based form.

2.5.3 Major paradigm shifts of Ethiopian TVET for the 21st Century

Ethiopia has made a basic change in the orientation of TVET from traditional to outcome- based. Research findings and common senses support the idea that outcome based TVET has many advantages over that of traditional TVET.

According to MOE report of 2010 made in coordination with Engineering Capacity Building Program, the difference between traditional and outcome based TVET has been stated as follows:

Old paradigm (Traditional TVET)	New Paradigm (Outcome based TVET)
-Input based system	-Output based system
-Supply driven approach	-Demand driven approach
-A lot of book knowledge (theory)	-Hands on training
-Rigid system	-Flexible system
-Semester based approach	-Modular approach
-No Recognition of Prior Learning (RPL)	- Recognition of Prior Learning (RPL)
-No transparent assessment	-Transparent assessment
-Time bounded training	-No time bounded training
-Skill recognition by training period	- Skill recognition based on competence
-Group paced and passive training	- Self paced and active training
-Training focus on trainers/teachers	-Training focus on the trainers
-Training for wage employment	-Training for wage and self-employment
-Specialization in one skill	-A search for multi-skilling
-Rigid and fixed entry and exit	-Flexible and multiple entry and exit
-Focus on formal sector	-Focus both on formal and informal sectors-
-Centralized system	-Decentralized system
-Governance dominated by the state	-Participatory governance of TVET
Policy & delivery dominated by the state	-Policy and delivery separate, market driven
- One time learning	-Continuing or lifelong learning
-Education and training separated	-Education and training integrated
-Expertise related to experience	-Cognitive, identifying and solving problems

In summation, a paradigm shift of TVET from its traditional form to the newly introduced outcome based form is expected to bring about a fundamental change in improving the quality of training. However, introducing a new outcome based TVET alone cannot help to improve the quality of the TVET system. Competent teachers play decisive role during implementation of outcome-based training.

2.6 The Need for Teachers' Competence in TVET

As one of the major inputs that determine the quality of vocational education and training; teachers' affairs should be given special attention. Accordingly, teachers' recruitment, training, industrial experience, career development, incentives, etc, to mention a few, should be given due attention.

To this end, Atchoarena and Delluc (2002:62) stated that in the supply of high quality technical and vocational education and training, the contribution of teachers play a significant role. Hence, teachers need first hand industrial experience or have no exposure to new technologies. Thus, they rarely have the possibility of up-grading stock of knowledge.

In line with this, MOE (2010) states that the very centre of quality to TVET rests an effective interaction between trainers and trainees. In fact, an overall improvement in competencies for employability can only be realized if there is an improvement in the quality, effectiveness and relevance of teaching by a competent trainer.

The implementation of the outcome-based TVET System necessitated the standardization of Leaders and Trainer's Qualification Levels in TVET, including a National Qualifications and Certification for TVET Trainers. The purpose of the standardization of TVET Leaders and Trainer's Qualification is for TVET Leaders/Trainers to have a distinct qualification and recognition apart from Trainers under the Higher Education. More importantly, this is also in line with the objective of ensuring the quality of TVET programs as per the National TVET Strategy.

In line with this idea, Tessaring, M., and Wannan, J. (2004) stated that effective vocational education and training requires trainers who have technical, pedagogical skills as well as industrial work experience. Such trainers are expensive to train or attract to the teaching and training profession.

Therefore, having technical skill, pedagogical skill, knowledge of subject matter and industrial experience is pertinent for TVET teachers. Furthermore, considering the need for innovation for TVET, the role of teachers remains sufficient. Teachers should be trained in new methods and continuously up- grade in competence and professional development. The qualification requirement of 21st century TVET teachers must be reconsidered to include the optimum balance between training acquired and in the institutions and work place. New and appropriate instrument of assessment, accreditation, articulation and certification should be developed (UNESCO, 1999:65).

In low-income countries including Ethiopia, it is difficult to recruit teachers with relevant industrial experience and retraining good teachers is problematic due to lower pay than outside teaching field in their trade. Paradoxically, the conditions that improve the external efficiency adversely affects the internal efficiency of training because the easier the trainees find work, the harder it is also to keep the vocational teachers from leaving to take up better salary employment in their trades. Therefore, due attention must be given to incentives of good teachers through institutional development measures, (Lauglo, 1993:5).

To sum up, the competence of teachers determine the quality of vocational education and training to have competent citizens. This led to the commencement of occupational assessment and certification programs that can check the whether the knowledge, skill and attitude of teachers and any other assessment candidates achieve in the required standard.

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2.7 Purposes of Occupational Assessment System

As has been mentioned somewhere in this document, occupational assessment can contribute a lot in enhancing quality training and education and thereby prepare competent human power for work by making judgment on the knowledge, skill, and attitude of a candidate based on the established occupational standard.

In agreement with this, researchers state assessment as a process of gathering evidence, making judgments and drawing inferences about student achievement and performance. Airasian (1994) and Pellegrino, Chudowsky and Glaser (2001) summarized the purposes of assessment as: promoting learning; measuring individual achievement; and evaluating programs.

With regard to this, MOE 2010 stated assessment as the process of gathering evidence about a learner's prior and current competence regardless of how they were achieved and making judgments using pre-determined criteria that is based on the OS.

In line with this, Curtis (2009) stated that teaching, learning and assessment in TVET is a broad topic, and it seems sensible to focus on a key element – assessment. Rather than being an event that occurs after instruction to check on individual learning, assessment can be central in driving quality learning and instruction. Assessment should be a process that is designed into teaching and learning, and being a design feature of TVET it must meet the needs of the many TVET stakeholders. These include governments, industry bodies and employers, TVET practitioners and of course learners. A key point about assessment is that it is a driver for teaching and learning. If we establish the right assessment processes, effective teaching and learning will follow. Boud (1995, p. 40), quoted Eisner (1993) as saying "...the act of assessment signals the importance of what is being assessed, so assessment is a driver for learning."

Effective assessment requires a high level of technical competence, equipment, material, logistics, and congruence between teaching and curriculum (DyKstra, 2000).

The assessment process seeks to determine whether the graduate or worker is able to perform the standards expected in the workplace. Certification is provided to those who meet the competency standards. This ensures the productivity, quality and global competitiveness of the middle-level workers (MOE, 2010).

In summary, is difficult to think of social and economic development of a country without improving the quality of human resource. This can be realized not simply by expanding education and training but also by making continuous judgments through standardized occupational assessment in order to certify the knowledge and skill achieved by training or/and life experience. As a result, many countries in the world are practicing the system of occupational assessment and certification programs (OACP).

2.8 OAC Practices of Some Countries Including Ethiopia

Research findings and practical experiences show that the need to certify the knowledge and skill achieved by training or/and life experience is increasing.

Increasingly, evaluation and measurement specialists are nowadays using the term "assessment" to describe the process of gathering information about students learning. Assessment is broader than testing and measurement because it includes all kind of ways to sample and observe students' skills (psychomotor domain), knowledge (cognitive domain), values and emotions (affective domain).Romania is reforming its Technical and Vocational Education and Training (TVET) system and introducing a National Qualifications Framework (NQF) and a National Quality Assurance Framework (NQAF) to create a new and comprehensive national quality assurance system for qualifications (Krathwol, 1956).

Australia

The use of competency-based training and assessment in almost all TVET programs in Australia continues to be contentious. Of course, one would not want to argue against the notion that learners, upon graduation, should be competent practitioners. However, how

competence is conceived, what constitutes competence, and how it can be developed are all extensively debated (Eraut, 1994).

Competency-based assessment in Australian VET results in one of two grades being awarded at the level of a unit of competency, namely competent or not-yet-competent. But competency can be reported using much finer distinctions. Considerable work has been undertaken on graded assessment in Australian VET (Griffin, Gillis, and Calvitto, 2007).

Lajoie (2003) refers to the value of 'dynamic assessment' and says "...assessment can reduce the time it takes to become competent if coupled with effective feedback and practice opportunities for learner engagement in realistic contexts". (p. 23).

The three main purposes of assessment identified are promoting learning, measuring individual achievement, and evaluating programs. It is useful to explore assessment options in TVET that can satisfy each of these purposes. The four broad categories of assessment types conventionally used to judge the suitability of forms of assessment to identify the purposes include standardized assessment, the use of common assessment tasks, performance assessment, and portfolio construction. The criteria conventionally used are validity, reliability; authenticity, objectivity, and feasibility (Resnick, 2010).

Qualifications frameworks that include recognition of learning achievements, and that therefore depend on compatible assessment models, can facilitate mobility between TVET and higher education. This is a relatively under-utilized feature of these structures, although there are some examples of good practice in Australia (Curtis, 2009).
Occupational Assessment and Certification practices of some countries including Ethiopia are indicated below.

Philippine

Assessment and certification system is among the essential quality assurance mechanisms in TVET. It is the process of evaluating the TVET graduates and skilled workers if they have the necessary competence to perform the tasks to the required standards in the

workplace. This mechanism provides the evidence whether compliance to standards and competency requirements have been achieved. The assessment and certification system involves over- arching components such as the accreditation of assessors, development of assessment tools as essential part of training packages, qualification of TVET trainers as assessors, recognition/accreditation of National Assessment Boards across various sectors, among others.

All programs with training regulations are provided with competency assessment tools specifically designed to measure the effectiveness of training delivery. These tools consist of 1) self assessment guide, 2) assessment agreement, 3) written examination, 4) assessor's guide and 5) marking sheets. Efforts are continually being done to effect assessment by sector boards from the private sector. Formal agreements are entered into by TESDA with industry associations to empower them to manage the competency assessment processes in their own sphere of influence. Currently, organization of National Assessment Boards is being pilot tested in the area of tourism services, community and health services, information and communication technology and agriculture and fisheries. As to issuance of certificates, unlike in other countries, TESDA issues national certificates to persons who have attained competence in all units of competency comprising a national qualification. The qualifications are aligned with specific skills levels as defined in the National Qualification Framework. The present NQF defines four (4) certificate levels for TVET—National Certificate Levels I, II, III and IV (TESDA, 2010).

Senegal

In his review of TVET in Senegal Delluc, (2002:127) stated that such as those of National Centre for Vocational Qualifications of the Vocational and Technical Education and Regional Centre of Vocational Education are equally a result of recommendations of the National Conference of Senegal 1981. This new institutional environment gave new life to the TVET sector, which nevertheless remained under the close control of the state. The text underlines incapacity of secondary intermediate practical courses to correct the effects of loss of quality of the school. The new law restates the general principles

according to which the state guarantees the quality of education and training as well as certification given.

On his statement of validation VET in Togo, Delluc, (2002:187) stated that the initial vocational education, the examination for Togo VTE are highly consistent with the curricula. Evaluation procedures involve tests that are conducted by the teachers of the corresponding subjects. However, as soon as the mode of training evolves, through continuing education or dual training, this consistency is reduced and the validation becomes questionable. Should one, for example, ask apprentices as in Togo, in the Regional Centers for Vocational Qualifications, in Dakar, to sit for the assessment of professional certificate? The response given in both cases was negative and another more suitable diploma has been created. It is the Vocational Qualifications Certificate, a national diploma in Togo, and delivered only by the National Profession Center of Qualification in Senegal.

Ethiopia

The Ethiopian Education and Training Policy (ETP, 1994) came to force as a response to the overall educational under achievement in many fronts: access, quality and relevance, equity and efficiency in the system (ETP, p.2). Consequently, the policy states:
"Continuous assessment in academic and practical subjects, including aptitude tests will be conducted to ascertain the formation of all round profile of students at all level" (ETP, 1994:7).

Under the system of outcomes-based assessment, acknowledgment and recognition is given to learning which takes place outside the formal classroom setting. The learner is assessed against pre-determined standards, and if there is evidence that competence exists (including underpinning knowledge and practical demonstration of competence), training may not be required. Recognition of Prior Learning therefore becomes a critical component of competency-based systems. Learners can have their competencies assessed, recorded and recognized through a variety of methods such as On-the-Job and prior learning, college credits, etc.

Occupational competence assessment and certification is the main feature of the outcome based TVET system to verify individual occupational competencies. Occupational testing and certification will be accessible to all candidates who feel that they meet the requirements of the respective occupational standards, irrespective of how and where trained or learned. Contrary to past practice in Ethiopia, access to national TVET qualifications will no longer be dependent on attending a formal, non-formal and informal TVET program. Occupational testing will take place in accredited public and private testing centers. Assessment will be conducted by accredited assessors possibly experts from the world of work (employers) or trainers. Responsibility for establishing and facilitating a national occupational competence assessment and certification system rests with the federal TVET Agency and that of regional on COC. For those who successfully pass occupational assessment, a national occupational qualification certificate will be issued by the State TVET Authorities on behalf of the Federal TVET Agency (MOE, 2006:21, 22).

To sum up, many countries including Ethiopia are aware of the need for assessment and certification programs in creating competent citizens to the standard of global development. The effective implementation of the assessment and certification programs demands using sufficient resources and applying basic principles.

2.9 General Principles of Assessment and Certification Systems

Implementation of assessment and certification programs is based on a defined general principles outlined by the authorized body of the Ethiopian Ministry of Education.

In the directive for assessment and certification system, MOE (2010) stated that Occupational Standards (OS) are the benchmark for training, assessment and certification. They should be fitted against qualification levels that are employable in industry, starting from the lowest possible qualification; assessment shall be conducted only in accredited assessment centers and by accredited assessors; the system provides recognition for both prior learning and current competences (RPL and RCC). That means any person who believes that s/he is competent enough in a specific level or unit/s of

competence of an occupation resulting from work or life experience or relevant education and training may undergo competence assessment; the system provides that a full qualification may be attained through accumulation of achieved units of competence leading to a national qualification Certification (NQC) or directly undertaking assessment towards a Full National Qualification Certificate; NQC is awarded to those who met the requirements of the whole OS while CC (Certificate of Competence) is awarded to those who met the requirements at a specific unit/s of competence of an occupation; the system allows progressive assessment by qualification level, starting from the lowest available qualification level; a candidate can appeal an assessment decision if he/she found the assessment procedure followed is unfair and/or discriminatory; assessment fee shall be fixed based on calculation that considers major supplies, assessors' honoraria, power and utilities, equipments and machinery, reproduction of assessment tools and other relevant administrative costs.

In summation, Assessment and certification programs could be implemented effectively if the appropriate guidelines, directive, policies, strategies and principles are in place. Implementation of the programs also demands a corresponding organizational functional structure.

2.10 Organization and Functional Relationships of ACP

For effective implementation of assessment and certification program, appropriate resources and organizational and functional structure must be in place.

According to the directive of MOE (2010), the following organizational and functional relationships should come into effect for an effective IACP.

Center of Competence (COC)

COCs shall be fully responsible for the administration, use and maintenance of properties, infrastructures and facilities in the disposal of their function; facilitate the dissemination of information for the assessment and certification program in various media platforms; facilitate conduct of Assessors Methodology course to industry practitioners and those qualified to handle assessment activities; accredit qualified

practitioners and trainers to serve as assessors in their respective occupations and qualification levels; accredit qualified establishments, TVET institutions or business establishments as Assessment Center for specific occupational qualification level, after assessing the establishment's readiness to house assessment of practical skills; facilitate and supervise the actual conduct of assessment in the accredited assessment center, and provide the center with the qualified assessors; and maintain and manage the confidentiality and integrity of the assessment tools and results of assessments (MOE, 2010).

Assessment Center (AC)

Assessment center is an industry or a training center that is accredited by the respective COC as an assessment venue.

According to MOE (2010), assessment center accepts and process applications for assessment, and receive with proper receipts the payments for assessment; the Center has to orient and create adequate awareness among its registered candidates on the assessment procedure as well as on DOs and DON'Ts; make sure that the required equipment, tools and materials and other necessary facilities are prepared at least 1 week before the conduct of actual assessment, and ready for inspection by COC officials and appointed assessors; facilitate the conduct of assessment activities, making available all the resources needed, including shop-in-charge and shop assistants, and providing these personnel the proper remuneration for services rendered outside official working time; accept appeals of candidates on assessment decisions(if the official process or procedure of assessment has not been followed, if method of assessment has been wrongly applied, or when faced with personal bias, bad faith and/or discrimination; provide the assessors with the proper honoraria based on the agreed rates, as approved by the Regional government, on the same date of assessment following an approval from the COC representative for receiving the required report of assessment

To sum up, assessment centers are venues were assessments are conducted under the supervision of the assessment center coordinators and COC experts. They are expected to have accredited assessors, enough facilities, supplies, equipments and materials for assessment in the occupations they have been accredited to assess candidates. Assessment

Center Coordinator assumes full responsibility for ensuring the objectivity and validity of assessment conducted in the center and by the accredited competence assessor.
Hence, assessment also necessitates having effective implementers of assessment and certification program. They are both full time and part time implementers of the program and have direct responsibility and accountability. Among them, include the COC supervisors / experts and the director, the assessment center coordinators, and the industry assessors.

Industry/Core Assessors

Assessors are industry experts who meets the required qualifications to be authorized by the COC to assess whether a candidate possess certain competences or all the competences defined by an occupational qualification level

According to MOE (2010), an assessor must be a practitioner of the occupation in industry or trainer of the occupation qualification level at least for the recent two (2) years and an industry working experience; an assessor must be holder of a valid NQC, at least the one level above the qualification he/she is accredited; an assessor must undertake the assessor's course conducted by either the COC followed by being loaded as an assistant assessor on at least two (2) actual assessment sessions;

To sum up, industry assessors are qualified, trained and competent have industry experience in the area they are assigned to assess candidates, should have verifiable relevant current industry experience and knowledge of the occupational working area at or above the level being assessed. Plan the assessment, collecting evidence, judging evidence and making the assessment decision.

Assessors are knowledgeable and creative enough to provide an assessment method to best fit the candidate's needs; should have sufficient occupational expertise so they have up to date knowledge and experience of the particular aspects of work they are assessing ,have experience and occupational competence to enable them to make a valid judgment about the demonstration of competence in the area they will be assessing; follow the official processes or procedures; apply the correct method of assessment, avoid personal

bias, bad faith and discrimination; give proper feedback on the weak and strong performance of candidates, only assess in their acknowledged area of occupational competence.

The Supervisor

The supervisors are fulltime workers in COC who are assigned to carry out the major tasks during implementation of assessment and certification programs.

According to MOE (2010), the COC shall appoint a representative (foreign expert or COC staff) who shall act as supervisor of a particular assessment session; assist the assessor in making sure that the candidates for assessment are only those registered with proper identification cards and numbers; assist the assessor in making sure that all the required information in the registration forms is correctly filled-up; make sure that all the contents of the assessment package are provided to the Assessor; assist the assessor in making sure that all the requirements for assessment are present at the AC and meets the required specifications; collects back the assessment package from the assessor including answer sheets, marking forms, attendance sheets, and other reports pertaining to the assessment activity; provide the ACs with a copy of the attendance sheet submitted by the assessor, to support his honoraria; and make sure that the conduct of assessment complies with quality procedures.

In summation, COC experts/ supervisors are assigned to undertake the coordinating and monitoring activities of assessment. This again calls for having standardized assessment tools set by industry experts based on the relevant occupational standards.

Assessment Tools

Assessment tools are standardized assessment packages consisting of both knowledge test (multiple choice and matching questions) and guide for practical assessment.

According to MOE (2010), assessment tools are developed by the Federal TVET, in consultation with industry and based on the individual unit of competence or set of units of competence in the qualification levels of the occupation, defined under the respective

OSs; assessment tools must undergo validation from industry and should be piloted by the Federal TVET before deployment to check whether the requirements of the tool can be met in the actual assessment setting. (Equipment, tools, materials and time); only nationally-developed assessment tools shall be used for assessment and must not be modified to suit local conditions; and ATs will be developed and conducted only by the language in which the corresponding OS is developed.

To sum up, assessment tools are assessment questions which include knowledge test and practical test. After having appropriate and well equipped assessment centers, competent assessors and standardized assessment tools, it is possible to conduct the assessment to any candidates who come to be assessed voluntarily.

Conduct of Assessment/Assessment Administration

The conduct of assessment should be made possible on the basis of predetermined assessment procedures.

MOE (2010) stated that TVET institutions shall require the graduating trainees to undergo national assessment as a requirement for graduation; competence assessment shall be conducted only in an accredited assessment center by an accredited competence assessor; the assessor shall conduct the assessment according to the procedures indicated in the Assessment package; the assessor shall provide feedback and advice to the candidate on the result of the assessment; the assessor shall hold confidential the result of assessment for every candidate; candidates who were assessed as not yet competent may apply for re-assessment after three months looking at the schedule from the COC to the nearest assessment Center; and a candidate who fails the assessment for two consecutive times shall be advised to take refresher training or practice the skills in industry.

In summation, the assessment is to be conducted by accredited assessors in ACs based on the on the established procedures and guidelines in order to come up with the decision competent or not yet competent. Certificate of competence will be issued to the competent individuals. As a result, there is again a need to have clear information about the certificates.

Certification

Certification as defined by the Ethiopian MOE (2010) is a formal process of recognizing that an individual is qualified in terms of the required knowledge, skills and proper work attitudes based on the occupational standards set by industry.

To obtain National Qualification Certificate, a candidate must demonstrate competence during the assessment session, covering all the identified units of competence for a particular Qualification level; Competence Certificate (CC) shall be issued to a candidate who demonstrates competence in a unit or cluster of units of competences which is part of a full qualification; A candidate who is recommended for certification by an Assessor, for having demonstrated competence in all units of competence of a qualification level, will be issued a NQC by the Federal TVET Agency. It shall be signed by the concerned State Minister of Education and issued by the COC within one (1) month after the assessment; A CC shall be issued to a candidate who is COMPETENT in a unit/s of Competence. This shall be signed by the Director of the Center of Competence and issued within one (1) month after the assessment; the validity period of NQCs and CCs shall be three (3) years; all certificates shall come from the Federal TVET Agency and be provided to the COCs on request.

In general, the outcome of training delivered in the system is measured through a process of verification of a candidate's achieved competences, known as occupational/competence assessment. When we say assessment it is not only a TVET graduate's competence that is to be measured but also that of anyone who wants his/her competences be recognized. A candidate, no matter the way s/he achieved the competence, who has proven competent through assessment is awarded a certificate. This certificate is an official and nationally recognized proof of the person's competence in the respective level or unit/s of competence of an occupation (MOE, 2010).

To sum up, certification is the procedure needed to issue a certificate. Certificate is a legal document that recognizes the candidates' competence in full or part of an area after assessment. Of course, certificate of competence can only be valued by employers if the assessment process is found to be trusted by them.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Research Method

As indicated in the objective of the study, the focus was on investigation of the status, success and challenges of implementing occupational assessment and certification programs in Tigray COC. To attain the objectives, the researcher made use of both quantitative and qualitative approaches. That is, the study was mainly carried out by using a quantitative - descriptive survey method which the researcher believed was more appropriate to collect more information from large sample population related to the issue. Besides, qualitative approach has been employed to secure data through FGD, interview as well as document analysis from relevant sources.

3.2 Sources of the Data

The sources of the data for this study were TVET graduates and trainers from Mekelle zone of the region who took assessment given by Tigray COC on various occupations during the past two consecutive years and officials in TVET bureau, COC experts, and assessment centers. In addition, relevant documents and reports of Tigray COC were incorporated in the study.

3.3 Target Population and Sampling Procedure

As mentioned earlier, Mekelle zone of Tigray Regional State was the study area. This zone was chosen as a study area for two important reasons. Firstly, the researcher believed that it could be the best representative of the five zones of Tigray regional State though generalization is difficult as each zone has its own peculiar nature, opportunities and challenges related to assessment and certification. Secondly, since the researcher was working in Mekelle zone, he had some exposure and could get easy access to the data source and hence can get relatively enough time for data collection and analysis.

The population of the study for the quantitative data was the total number of the TVET graduates and teachers from Mekelle zone who took assessment in different assessment centers of Tigray COC on various TVET occupations during the past two consecutive years. The researcher found the list of the intended population with their background and assessment results from the documents of Tigray COC. The population includes heterogeneous groups who were assessed in various occupations and consisting of different educational background ranging from certificate to first degree in TVET related areas and both employed and unemployed individuals. The researcher selected a total sample size of 312 out of the 1049 total population of the study. That is, 142(20%) of the 710 total population of the TVET graduates and 170(50%) of the 339 total population of the TVET trainers. In order to sample the TVET trainers as respondents for the actual survey, the researcher employed simple random sampling method by using *a table of random numbers or table of random digits*. On the other side, the researcher used the non probability sampling particularly purposive sampling technique to sample the graduates based on the belief that they couldn't have known address and only those who have relevant views to the issue concerned could be selected by snowball. And this was practically seen and realized effectively during the research work. The reason behind the 20% selection from the graduates was because of their relatively large number and absence of fixed address in which the researcher could only collect data by snowball. On the other hand, selection of 50% of the trainers was based on their relatively small number and fixed address and hence could be manageable. The researcher had strong conviction that the given percentages of the sample size were sufficiently large to be representative of the population and could suffice to secure data on the issue of the study. Besides, the researcher employed relevant documents and reports of the regional COC as well as FGD and interview which together incorporated thirty nine participants adding up to the credibility of the data. Hence, the researcher used a total sample size of 351 for the study.

For the FGD, all the twenty one local and Pilipino experts including the director of Tigray COC have been made to participate. On the other hand, twenty already assessed TT and fifteen TG who were not included in the actual sample group joined in a pretest study as a reliability procedure for the questionnaires.

For the interview, the researcher accommodated a total of eighteen respondents. The composition and size of the participants encompassed all the sixteen coordinators of the already available assessment centers in Mekelle zone, a process owner of outcome based training and the head of the TVET bureau in the region. As to the knowledge of the researcher, all the interviewees were selected purposely to secure data because of their relevant views and sufficient experience on the investigated issue.

3.4 Data Gathering Instruments and Procedures

3.4.1 Data Gathering Instruments

In investigating the successes achieved and challenges faced in implementation of assessment and certification program by Tigray COC, the researcher constructed and applied appropriate data gathering instruments on the basis of the reviewed literature and the required data to be collected. The researcher used questionnaire, interview, Focus Group Discussion (FGD), and document review as instruments to obtain the required information for the study. The main data gathering instrument for the study was questionnaire. The researcher applied the interview, FGD, and document review mainly to triangulate the study. That is, whenever there was a need for more in- depth information about particular aspects of the survey for instance, to compensate defects in particular question items of the questionnaires, the researcher applied in-depth qualitative data such as interviews, FGD, and document review at appropriate points in the design.

3.4.2 Data Gathering Procedures

To collect relevant information for the study, the researcher applied the following data gathering procedures for each of the data gathering instruments used.

A. Questionnaires

Since questionnaires require less time to administer and are therefore less expensive, and permit data collection from a larger sample, the researcher employed questionnaires as

his main data gathering instruments. The researcher developed the questionnaires based on the reviewed literatures and the policy documents and guidelines (TVET qualification frame work, occupational standard, assessment guideline).

Just for convenience, the researcher prepared two sets of questionnaires in English and Tigrigna languages, one for the TVET trainers and another one for the TVET graduates who took occupational assessment.

The questionnaires have two major sections: the first section was about the respondents' personal characteristics, and the second one was about the status of, challenges encountered and successes achieved during implementation of assessment and certification programs. To make them easier to read, the researcher divided the questions into more sub-sections and numbered them per section.

Clear instructions have been given at the beginning and throughout the questionnaires so that the respondents could easily move their way through the questions.
The layout of the questionnaires were designed in such a way that capture respondent's attention and make them interested in answering all the questions and facilitate data coding and analysis by the researcher.

After the preparation, the researcher's academic advisor and colleagues evaluated and commented the questionnaires for their content validity, relevance, completeness, and clarity. Then, in order to ensure ease of completion and avoid ambiguity and thereby increase the reliability and validity of the questions, the researcher conducted pilot study on subjects from a similar population. That is, before distributing the questionnaires to sample respondents, the researcher carried out pilot test with twenty TVET trainers and fifteen graduates who were not included in the actual sample group and modified for final distribution. This has been done by sitting down with the thirty five similar respondents outside Mekelle, (those from Maichew, Adigrat, Adwa, Shire and Abi Adi) and gone through the questions together with the researcher for two times by dividing them into two in order to identify potential problems for instance, to ensure that the questions were all unambiguous, appropriate and acceptable to the respondents. Based on the comments

obtained and questions raised by respondents for more clarification, the researcher made necessary corrections and modifications before distributing them to the actual respondents. For instance, the pilot test revealed that two items were stated in a broad and vague sense leading to dilemma. Other four items were already mentioned in one or the other way, in the preceding items. Accordingly, the researcher paraphrased the broad items in a more simplified way by making them more specific and avoided the redundancies by cancelling out the directly or indirectly repeated items. In addition, the content and style of the questionnaires and the range of possible responses for each question were identified after the pilot test. Accordingly, the researcher revised the content and the style of the questionnaires and mode them more clear and precise. The range of possible response for each closed-ended question was narrow except to the open-ended questions in which some respondents didn't fill them up. Hence, the researcher reduced the number of open-ended questions and correspondingly changed them to closed-ended questions to make the respondents interested in answering all the questions. Then, the questionnaires were translated into Tigrigna and commented again by five colleagues of the researcher for the appropriateness of the translation.

In distributing and collecting the questionnaires, the researcher was assisted by fifteen graduates, thirteen TVET leaders and department heads of governmental and private training centers, eight Pilipino and local experts from Tigray COC. Special assistants were assigned to help the disabled respondents in reading and filling the questionnaires just in case, but no one of the respondents was disabled. To have a maximum rate of return and quality responses, convenient time was arranged for respondents. That is, the survey was administered both on working hours and outside, wherever and whenever the respondents could freely be available. The researcher with his assistants made continuous follow up to facilitate the feedback and to correct the problems confronted on the process of filling questionnaires. That is, the self- administered questionnaires were filled in the presence of the researcher and/or his assistants, personally meeting all survey respondents to explain the purpose, sincerity and worth of the survey and hence ensure completion. Further explanations have been given to the respondents on the steps involved in the survey process by giving emphasis on the anonymity or confidentiality of their responses and that the survey was voluntary.

B. Interview

Interview was used to gather data from the two TVET officials and sixteen assessment center coordinators. All of them are males. To this end, semi-structured interview guide was developed by the researcher and used to guide the discussion. After explaining the purpose of the interview to the interviewees and getting their consent the researcher has conducted the interview and recorded the information by taking notes on the main themes of the discussion. The researcher did not use tape recorder to record the information from all of his respondents because he wanted them to respond to his questions freely. The interview took on average 45 minutes for each interviewee.

C. Focus Group Discussion (FGD)

The FGD was guided by open- ended questions developed by the researcher from the reviewed literature. It was conducted on twenty one participants (M= 19, F= 2) who were supposed to have direct and active participation and reflection on the discussion regarding the issue under investigation. The researcher accommodated the entire local and Pilipino experts of Tigray COC including the director in his FGD. The discussion was mainly focused on the major activities, successes achieved, problems encountered, and possible solutions to the problems concerning the implementation of assessment and certification program in light of addressing the needs of candidates and meeting COC objectives. The researcher first clarified themes of the discussion. The discussion was coordinated by one of the participants who was elected by the audience and was moderated by the researcher. Like that of the interview, the FGD was recorded only by taking notes for the above mentioned reason.

D. Document Review

In order to substantiate the data obtained from other sources and instruments, the researcher has also reviewed documents which are related to the implementation assessment and certification activities. He has reviewed the COC strategic plan of 2009/2010, the annual plan of 2009/2010, reports from the assessment centers and COC

Table 2. Personal characteristics of Respondents

Items	Responses											
	TVET Trainers (N = 169)		TVET Graduates (N = 122)		AC Coordinators (N = 16)		TVET bureau officials (N = 2)		COC Experts (N = 21)		Total (N = 330)	
	f	%	f	%	f	%	f	%	f	%	f	%
1. Sex												
Male	131	77.51	53	43.44	16	100	2	100	19	90.48	221	66.97
Female	38	22.49	69	56.56	0	0	0	0	2	9.52	109	33.03
Total	169	100	122	100	16	100	2	100	21	100	330	100
2.Age												
20 years and below	32	18.93	64	52.46	0	0	0	0	0	0	96	29.09
21-25	38	22.49	47	38.52	0	0	0	0	0	0	85	25.76
26-30	38	22.49	7	5.74	0	0	0	0	0	0	45	13.64
31-35	36	21.30	4	3.28	9	56.25	0	0	3	14.29	52	15.76
36 years and above	25	14.79	0	0	7	43.75	2	100	18	85.71	52	15.76
Total	169	100	122	100	16	100	2	100	21	100	330	100
3. Qualification Level												
Below level II	0	0	0	0	0	0	0	0	0	0	0	0
Level III	0	0	0	0	0	0	0	0	0	0	0	0
Level IV - Diploma	43	25.44	122	100	0	0	0	0	0	0	165	50.00
1st Degree	123	72.78	0	0	14	87.50	0	0	17	80.95	154	46.66
2nd Degree	3	1.77	0	0	2	12.50	2	100	4	19.05	11	3.33
Total	169	100	122	100	16	100	2	100	21	100	330	100
4.Area of specialization by sector												
Business Sector	22	13.02	75	13.02	6	37.50	2	100	3	14.29	108	32.73
ICT Sector	10	5.92	11	9.01	2	12.50	0	0	2	9.52	25	7.58
Manufacturing	14	8.28	4	3.28	1	6.25	0	0	3	14.29	22	6.66
Construction Sector	47	27.81	6	4.92	2	12.50	0	0	6	28.57	61	18.48
Health Sector	31	18.34	11	9.02	2	12.50	0	0	2	9.52	46	13.94
Electric/Electronics	26	15.38	10	8.20	2	12.50	0	0	2	9.52	40	12.12
Automotive Sector	19	11.24	5	4.10	1	6.25	0	0	3	14.29	28	8.48
Total	169	100	122	100	16	100	2	100	21	100	330	100

Item 1 of Table 2 depicts the characteristics of the respondents by sex. As it can be clearly seen it is male dominated. Out of the total respondents 221(66.97 %) are males and109 (33.03%) are females. This implies that, though the majority is from males, relatively fair distribution of respondents along their sex is kept in the study. The data indicates that the study incorporates the views /ideas of both males and females. The data also shows the low level of female participation in occupational assessment. Hence, it

calls for an effort to increase the number of females participating in occupational assessment.

Regarding the age range of the respondents, item 2 of table 2 indicated that the great majority, 96 (29.09 %) and 83 (25.76%) of the respondents were between twenty years and below and twenty five years old indicating that they were youngsters. However a relatively fair distribution of respondents along their age group was involved in the study. That is, 45 (13.64), 52 (15.76), 52 (15.76), of the respondents were in the age group between 26-30, 31-35, and 36 years and above respectively.

As it can be seen from item 3 of Table 2, the qualification level of most respondents, 162 (49.09) and 157 (47.58%) ranges from diploma to first degree. The rest, 11 (3.33%), respondents were second degree holders. From this result, it seems possible to conclude that almost all of informants are more likely to have better understanding of the issues under investigation and they are capable to provide the required information properly.

The other personal characteristic of respondents which is depicted in item 4 Table 2 is area of specialization by sector. It is indicated that the assessed TVET trainers and graduates in seven occupations are incorporated in the study. In line with this, the data in the table indicates the study incorporated relatively fair distribution of the respondents in respect to their area of qualification by sector. The distribution of TVET trainers and graduates in each sector includes: 108 (32.73%) in Business; 25(7.51%) in ICT; 22 (6.66%) in Manufacturing; 61(18.48%) in Construction; 46(13.94%) in Health; 40 (12.12%) in Electric/Electronics; and 28 (8.48%) in Automotive sectors. The table also shows the assessment center coordinators, the TVET bureau officials and the COC experts have specialization areas in similar sectors with the trainers and graduates. From the result one can conclude that all of the respondents have better exposure on the assessment and certification programs.

Presentation, Interpretation and Analysis of the Data

The qualitative data were analyzed in description forms by means of content analysis techniques. This was made following the analysis of each of the quantitative data as

needed for its substantiation and validation. Direct quotations of themes of the collected qualitative data were used to substantiate the quantitative data.

Issues Related to the Successes Achieved and Challenges Faced In IACP

The six COC major improvement domains namely, facilities of assessment centers , assessors' quality, assessment administration, availability of standardized assessment tools, quality of certification system, and capacity of Tigray COC were well treated below part by part.

4.1 Facilities of Assessment Centers (ACs) Domain

To be able to explore information on this issue, interviews and FGD were conducted in addition to the questionnaires. Accordingly, the responses to these data gathering instruments are summarized and presented in table 3.

Table 3 Responses Regarding the Adequacy and Capacity of Assessment Centers

No	Items	Rating scale and Alternatives	Frequency and Percentage of responses						Mean
			TT (N=169)		TG (N=122)		Total (N=291)		
			f	%	F	%	f	%	
1	There were adequate appropriate assessment centers from industries	1.SD	17	10.06	29	23.77	46	15.81	2.6
		2.Disagree	62	36.69	43	35.25	105	36.08	
		3.Undecided	49	28.99	26	21.31	75	25.77	
		4.Agree	32	18.93	20	16.39	52	17.87	
		5.SA	9	5.33	4	3.28	13	4.47	
		Total	169	100	122	100	291	100	
2	The availability of appropriate assessment materials in assessment centers	1.Very Low	15	8.88	30	24.59	45	15.46	2.7
		2.Low	42	24.85	31	25.41	73	25.09	
		3.Moderate	74	43.79	39	31.97	113	38.83	
		4.High	31	18.34	11	9.02	42	14.43	
		5.Very High	7	4.14	11	9.01	18	6.19	
		Total	169	100	122	100	291	100	
3	The availability of cooperative and committed human power in assessment centers	1.Very Low	23	13.61	37	30.33	60	20.62	2.7
		2.Low	38	22.49	29	23.77	67	23.02	
		3.Moderate	54	31.95	36	29.51	90	30.93	
		4.High	29	17.16	13	10.65	42	14.43	
		5.Very High	25	14.79	7	5.74	32	11.00	
		Total	169	100	122	100	291	100	
4	Candidates were allowed to appeal on assessment decisions whenever the appropriate assessment procedures have not been followed by assessors	1.Not at All	34	20.12	44	36.07	78	26.80	2.6
		2.Very rarely	38	22.49	30	24.59	68	23.37	
		3.Sometimes	35	20.71	19	15.57	54	18.56	
		4.Often	36	21.30	16	13.11	52	17.87	
		5.Very often	26	15.38	13	10.66	39	13.40	
		Total	169	100	122	100	291	100	
5	The assessment fee was fair for a candidate to be assessed again and again	1.SD	56	33.14	58	47.54	114	39.18	2.2
		2.Disagree	47	27.81	23	18.85	70	24.05	
		3.Undecided	41	24.26	20	16.39	61	20.96	
		4.Agree	14	8.28	12	9.84	26	8.93	
		5.SA	11	6.51	9	7.38	20	6.87	
		Total	169	100	122	100	291	100	

As depicted in Table 3 of item 1, majority of the respondents, 51.89 % (that is, 15.81% strongly disagree and 36.08 % disagree) reported that they did not agree with the statement that reads, *"There were adequate appropriate assessment centers from industries"*. This was confirmed by the data reviewed from different documents (statistical and performance reports) of the COC, and from FGD. The focus group discussant with the COC experts and documents revealed that even though the assessment directive recommends having appropriate assessment center from the industries, most of the assessment centers in the region were from the private and governmental training centers due to shortage of the required industries.

For item 2 in Table 3, respondents were asked to rate the availability of appropriate assessment materials in AC in their respective Region/zone. Majority of the respondents, 40.55% (that is, 15.46% Very Low and 25.09% Low) indicated that the availability of appropriate assessment materials in assessment centers was low. This was strongly supported by the FGD and interview. All the focus group discussants and interviewees agreed that there was shortage of standardized assessment materials in assessment centers. Similarly, in their response to the open - ended question items regarding the challenges encountered during assessment and their solutions, the great majority of the respondents stated that there was severe shortage of tools, equipments, machines, computers and other materials necessary for assessment. For instance, as a solution for this problem, one of the respondents of trainers stated in his own words as: " **ብክልል COC ዝውነን ሓደ ስታንዳርዱ ዝሓለወ ማእከል ምዘና ክህሉ ምግባር።**" Meaning, " *Having one standardized assessment center owned by the Regional COC*". Similarly, another respondent who faced this problem suggested in her word as: "**ምዘና ቅድሚ ምጅማሩ ኣብ ምዘና ማእከላት እኹል ቀረብ ናውቲ ምዘና ምህላው ምርግጋፅ የድሊ።** Meaning, *"Before the start of assessment, it is necessary to check if there are adequate assessment materials in the assessment centers"*.

For item 3 in Table 3, respondents were asked to rate the availability of cooperative and committed human power in assessment centers. Majority of the respondents, 43.64% (that is, 20.62% Very Low and 23.02% Low) rated that the availability of cooperative and committed human power in assessment centers was low. This was again confirmed

by the COC document and FGD. As was noted in the report of COC and by FGD participants regarding the problems in ACs, most AC coordinators did not actively participate and offer the necessary support to the assessment and certification programs. In addition to this, it was also revealed in the documents and by focus group discussant that some of the AC coordinators even stood against the programs for some reasons: Firstly, they claim that the money being paid by the candidates to the ACs was not enough and consequently they do not want to conduct assessments in their respective ACs. On the contrary, the candidates claim that they could not afford the assessment fees.

Secondly, the AC coordinators showed tendency of passing their graduates during assessments illegally by influencing the assessors and other means which is a challenge to meet the objectives of COC. On the other side, some interviewees from assessment center coordinators said that assessment centers were trying to cooperate with COC, but the effort made on the side of COC to strengthen their relationship was weak. Regarding this, one of the interviewees from the AC coordinators stated in his own words as: **"ማእከል ምርግጋፅ ብቕዓት ሞያን ምዘና ማእከላትን ንኩሉ ዓሚለን ማዕረን ስሓባይን ዝኾነ ግልጋሎት ንክህባ ዘኽእለን ምችው ባይታ ኣይተፈጠረን"**::Meaning, *"Conducive situation was not yet created that enable COC and ACs to give inclusive and attractive services to all of their customers"*. (March 10, 2011). This implies that the relationship and cooperation between COC and ACs in implementation of assessment was low and consequently this will be a challenge to COC.

The data for item 4 of Table 3 indicates that majority of the respondents, 50.17% (that is, 26.80 % Not at All and 23.37% Very Rarely) revealed that the extents to which candidates were allowed to appeal on assessment decisions whenever the appropriate assessment procedures have not been followed by the assessors. This implies that the candidates did not have opportunity of solving problems related to their assessment results.

The data for item 5 of the same table also reveals that majority of the respondents, 63.23% (that is, 39.18% strongly disagree and 24.05% disagree) reported that they did

not agree with the statement that reads, *"The assessment fee was fair for a candidate to be assessed again and again"*.

Perception of TT and TG on each issue was also computed using weighted mean to easily know for which item the respondents were negative or positive. If the mean of the responses is greater than three, their feeling is favorable or positive, if it is less than three, their feeling is unfavorable or negative because the ideal mean is three. Therefore the means of the responses of the TT and TG for items (1-5) is below three. Therefore, it is possible to conclude from the result of table 3 that majority of the respondents have unfavorable perception towards the adequacy and capacity of ACs.

This was supported by the responses of both trainers and graduates to the open-ended question items. Most of the respondents reported that they could not afford the assessment fee owing to their low economic status and hence many do not participate in the assessment. Many of them suggested what they think would be possible solutions for this problem. Among these are reducing the amount of fee; allowing free assessment especially for the first time; and introducing cost sharing system of assessment. Focus group discussants also shared the idea of cost sharing system to ease the financial problems of the candidates especially for the new graduates.

Similarly, responses on assessment centers obtained from the open–ended questions responded by the assessed TVET trainers and graduates; interviewed assessment center coordinators and TVET bureau officials and participants in FGD agreed with the above data as presented below:

- There was lack of appropriate assessment centers for assessment
- Inadequate number of appropriate ACs from industries
- Lack of appropriate assessment materials in the available ACs
    - problems in the type and number of the required materials;
    - problems in precision of the available equipments; and
    - poor quality of the available machines, computers and others.
- Lack of supportive and cooperative human resources in ACs

- did not give necessary orientation and information like the assessment guide and assessment agreement before the assessment to aware them about the assessment;
- most of them had problems in executing their duties and responsibilities such as accepting candidates' appeals on their assessment results.

In general, from the responses of trainers, graduates, AC coordinators and COC experts, one could understand that there were problems in the adequacy and capacity of ACs for assessment including assessment materials, human power, and facilities.

4.2 Effectiveness of Core Assessors Domain

This subsection includes the data gathered regarding the effectiveness of core assessors.

Table 4 Responses Regarding the Capacity of Assessors to Conduct Assessment

No	Items	Rating scale and Alternatives	Frequency and Percentage of responses						Mean
			TT (N=169)		TG (N=122)		Total (N=291)		
			f	%	f	%	f	%	
1	Assessors used established methods for the collection of evidences of competence	1.Not at all	18	10.65	37	30.33	55	18.90	2.8
		2.Very rarely	38	22.49	29	23.77	67	23.02	
		3.Sometimes	51	30.18	24	19.67	75	25.77	
		4.Always	36	21.3	20	16.39	56	19.24	
		5.Very often	26	15.38	12	9.84	38	13.06	
		Total	169	100	122	100	291	100	
2	Assessors offered guidance and thereby provided feedback on weak and strong performance of candidates for better improvement	1.Not at all	20	11.83	31	25.41	51	17.53	2.9
		2.Very rarely	30	17.75	39	31.97	69	23.71	
		3.Sometimes	53	31.36	22	18.03	75	25.77	
		4.Always	29	17.16	13	10.66	42	14.43	
		5.Very often	37	21.89	17	13.93	54	18.56	
		Total	169	100	122	100	291	100	
3	Assessors had verifiable relevant industry experiences and knowledge of the occupation at or above the level being assessed	1.SD	34	20.12	33	27.05	67	23.02	2.6
		2. Disagree	50	29.59	23	18.85	73	25.09	
		3.Undecided	52	30.77	29	23.77	81	27.84	
		4.Agree	24	14.20	19	15.57	43	14.78	
		5.SA	9	5.32	18	14.75	27	9.28	
		Total	169	100	122	100	291	100	
4	Assessors made allowable adjustments without compromising quality, to accommodate the interests of the beneficiaries/ candidates	1.SD	14	8.28	28	22.95	42	14.43	2.7
		2.Disagree	56	33.14	34	27.87	90	30.93	
		3.Undecided	53	31.36	25	20.49	78	26.8	
		4.Agree	40	23.67	23	18.85	63	21.65	
		5.SA	6	3.55	12	9.84	18	6.19	
		Total	169	100	122	100	291	100	
5	The availability of competent industry assessors	Very Low	30	17.75	21	17.21	51	17.53	2.8
		Low	50	29.59	27	22.13	77	26.46	
		Moderate	43	25.44	34	27.87	77	26.46	
		High	34	20.12	25	20.49	59	20.27	
		Very High	12	7.10	15	12.30	27	9.28	
		Total	169	100	122	100	291	100	

As the data corresponding to item 1 in Table 4 indicates, majority of the respondents, 41.92% (that is, 18.90% Not at All and 23.02% Very Rarely) replied that the extent to which assessors used established methods for the collection of evidences of competence was very rare. Similarly, as the data corresponding to item 2 in Table 4 indicates, majority of the respondents, 41.24% (that is, 17.53% Not at All and 23.71% Very Rarely) reported that the extent to which assessors offered guidance and thereby provided feedback on weak and strong performance of candidates for better improvement was very rare.

As indicated in item 3 of Table 4, majority of the respondents, 48.11% (23.02% strongly disagree, and 25.09% disagree) negatively responded to the item which reads, *"Assessors had verifiable relevant industry experiences and knowledge of the occupation at or above the level being assessed"*.

The data for item 4 of the same table also reveals that majority of the respondents, 45.36% (that is, 14.43% strongly disagree and 30.93% disagree) reported that they did not agree with the statement that reads, *"Assessors made allowable adjustments without compromising quality, to accommodate the interests of the beneficiaries/ candidates"*. Similarly, as shown in item 5 of Table 4, majority of the respondents, 43.99 % (that is, 17.53 % Very Low and 26.46 % Low) reported that the availability of competent industry assessors was low. The weighted means of the responses of the TT and TG for items (1-5) in table 4 is below three. Therefore, it is possible to conclude from the result that majority of the respondents have unfavorable perception towards the capacity of assessors to conduct assessment.

In addition, responses on assessors obtained from the open–ended questions responded by the assessed TVET trainers and graduates; interviewed assessment center coordinators and TVET bureau officials and participants in FGD are in agreement with the preceeding data on the same issue and are summarized as follows:

- Most of the assessors had no full confidence in their knowledge and skill on the occupations they were assessing others;

- most of them did not follow the established assessment procedure for the collection of evidence of competence;
- most of them were not treating or handling their candidates equally, in ethical manner;
- Some assessors gave result by guessing, had personal biasness, subjective measurement;
- Majority of them did not develop their own evidence plan to collect enough evidences of competence from each candidate which could help them for their final decision of competent or not yet competent;
- At the end of the assessment, most of them did not offer appropriate feedback on weak and strong performances of each candidate;
- During difficult situations, most of them did not make allowable adjustments to accommodate the interests of their candidates in order to create conducive environment for assessments;
- most of the assessor them-selves were not assessed or not yet competent on the occupations they were assessing others;
- most of them were not given appropriate training how to assess their candidates;
- most of them had no sufficient relevant industry experience.

This implies that assessors who did not satisfy the minimum requirement of COC directives were conducting assessments. That is, there was shortage of competent and committed industry assessors that could endanger the assessment.

4.3 Assessment Administration Domain

This section deals with assessment and certification activities carried out by COC with respect to its primary duties and responsibilities in order to meet its objectives. The data obtained on this issue is summarized in table 5.

Table 5 Responses Regarding performances of Tigray COC in Assessment Administration

No	Items	Rating scale and Alternatives	Frequency and Percentage of responses						Mean
			TT (N=169)		TG (N=122)		Total (N=291)		
			f	%	f	%	F	%	
1	Awareness creation by COC to community, industry and other stakeholders	1.Not at All	8	4.73	35	28.69	43	14.78	2.9
		2.Very rarely	33	19.53	30	24.59	63	21.65	
		3.Sometimes	57	33.73	31	25.41	88	30.24	
		4. Always	48	28.40	20	16.39	68	23.37	
		5. Very often	23	13.61	6	4.92	29	9.97	
		Total	169	100	122	100	291	100	
2	The system allowed progressive assessment by qualification level	1.Not at All	49	28.99	52	42.62	101	34.71	2.6
		2.Very rarely	23	13.61	24	19.67	47	16.15	
		3.Sometimes	27	15.98	19	15.57	46	15.81	
		4. Always	34	20.12	13	10.66	47	16.15	
		5. Very often	36	21.30	14	11.48	50	17.18	
		Total	169	100	122	100	291	100	
3	The system allowed accumulation of achieved units of competence	1.Not at All	57	33.73	64	52.46	121	41.58	2.4
		2.Very rarely	19	11.24	22	18.03	41	14.09	
		3.Sometimes	31	18.34	14	11.48	45	15.46	
		4. Always	38	22.49	15	12.30	53	18.21	
		5. Very often	24	14.20	7	5.74	31	10.65	
		Total	169	100	122	100	291	100	
4	Prior Learning was recognized by the assessment and certification programs	1.Not at All	38	22.49	46	37.71	84	28.87	2.6
		2.Very rarely	41	24.26	32	26.23	73	25.09	
		3.Sometimes	37	21.89	13	10.66	50	17.18	
		4. Always	22	13.02	19	15.57	41	14.09	
		5. Very often	31	18.34	12	9.84	43	14.78	
		Total	169	100	122	100	291	100	
5	The frequency of assessment offered on demand of the candidates	1.Very Low	33	19.53	37	30.33	70	24.05	2.4
		2.Low	62	36.69	35	28.69	97	33.33	
		3.Moderate	52	30.77	24	19.67	76	26.12	
		4.High	16	9.47	17	13.93	33	11.34	
		5.Very High	6	3.55	9	7.38	15	5.15	
		Total	169	100	122	100	291	100	
6	COC experts regularly evaluated assessment and certification activities for better improvement	1.SD	24	14.20	33	27.05	57	19.59	2.6
		2.Disagree	50	29.59	32	26.23	82	28.18	
		3.Undecided	60	35.50	26	21.31	86	29.55	
		4.Agree	29	17.16	23	18.85	52	17.87	
		5.SA	6	3.55	8	6.56	14	4.81	
		Total	169	100	122	100	291	100	

As shown in item 1 of Table 5, majority of the respondents, 36.46% reported that the frequency of awareness creation activities made by the COC to community, industry and other stakeholders was very rare. This was confirmed by similar responses of the TVET officials and assessment center coordinators in their interview, and COC experts in their FGD.

The data for item 2 of the same table shows majority of the respondents, 50.86% revealed that the extent to which the system allowed progressive assessment by qualification level was very rare. In connection with this, the data corresponding to item 3 in Table 5 shows that majority of the respondents, 55.67% reported that the extent to which the system allowed accumulation of achieved units of competence was very rare. Similarly, the data in item 4 of the same table also shows that majority of the respondents, 53.96% revealed that the extent to which the system recognized prior

learning through the assessment and certification programs was very rare. In connection with this, as shown in item 5 of Table 5, majority of respondents, 57.38% reported that the frequency of assessment offered on demand of the candidates was low.

The data for item 6 of the same table also reveals that majority of the respondents, 47.77 % (that is, 19.59% strongly disagree and 28.18% disagree) negatively responded to the item which reads, *"COC experts regularly evaluated assessment and certification activities for better improvements"*. Similarly, the means of the responses of the TT and TG for items (1-6) of table 5 is below three. Therefore, it is possible to conclude from the result that majority of the respondents have unfavorable perception towards the performance of Tigray COC in assessment administration.

This implies that the performance of Tigray COC in assessment administration was not satisfactory. That is, the experts had limitations in awareness creation, in conducting assessment in full capacity and in evaluating their activities.

4.4 The Assessment Tools Domain

The data gathered regarding the effectiveness of the assessment tools in IACP is presented under this subsection.

Table 6 Responses Regarding the Standard, Relevance and Effectiveness of the Assessment Tools

No	Items	Rating scale and Alternatives	Frequency and Percentage of responses						Mean
			TT (N=169)		TG (N=122)		Total (N=291)		
			f	%	f	%	f	%	
1	The assessment tools were standardized	1.Not at All	23	13.61	37	30.33	60	20.62	2.7
		2.Very Rarely	47	27.81	28	22.95	75	25.77	
		Sometimes	54	31.95	31	25.41	85	29.21	
		Often	26	15.38	13	10.66	39	13.40	
		Very Often	19	11.24	13	10.66	32	11.00	
		Total	169	100	122	100	291	100	
2	Relevance of the assessment tools to the Occupational Standards (OS)	Very Low	21	12.43	29	23.77	50	17.18	2.7
		Low	48	28.4	32	26.23	80	27.49	
		Moderate	58	34.31	33	27.05	91	31.27	
		High	31	18.34	19	15.57	50	17.18	
		Very High	11	6.51	9	7.38	20	6.87	
		Total	169	100	122	100	291	100	
3	Pilot tests were made before large scale implementation of the assessment tools for assessment	Not at All	35	20.71	45	36.89	80	27.49	2.6
		Very Rarely	42	24.85	28	22.95	70	24.05	
		Sometimes	42	24.85	18	14.75	60	20.62	
		Often	33	19.53	20	16.39	53	18.21	
		Very Often	17	10.06	11	9.02	28	9.62	
		Total	169	100	122	100	291	100	

As indicated in Table 6 of item 1, majority of the respondents, 46.39 % reported that the extent to which the assessment system used standardized assessment tools was very rare. In connection with this, as shown in item 2 of Table 6, majority of the respondents, 44.67 % revealed that the relevance of the assessment tools to the Occupational Standards (OS) was low. Similarly, the data in item 3 of the same table also reveals that majority of the respondents, 51.54% reported that the extent to which pilot tests made before large-scale implementation of the assessment tools for assessment was very rare. The means of the responses of the TT and TG for items (1-3) is below three. Therefore, it is possible to conclude from the result of table 6 that majority of the respondents have negative perception towards the standard, relevance and effectiveness of assessment tools.

The responses on assessment tools obtained from the open–ended questions responded by the assessed TVET trainers and graduates; interviewed assessment center coordinators and TVET bureau officials and participants in FGD agreed with the above data as presented hereunder:

Lack of standardized assessment tools in each area and level

- in some areas, shortage of time to complete the practical assessment;
- full of errors and vague questions in the knowledge tests of some areas;
- some assessment tools did not include all units of competencies of an area;
- no assessment tools set for each levels of an occupation (Level I, II, III,..) to enable candidates to be assessed according to their competence and need;
- Some areas of TVET have no assessment tools;
- most assessment tools were not piloted before their large scale implementation;

This implies that the assessment tools used for assessment were not standardized and hence was not so effective in measuring candidates' performance during assessments.

4.5 Effectiveness of Certification System Domain

In order to explore information on this issue, the researcher employed questionnaires and FGD. Accordingly, the responses to these items are summarized and presented in table 7.

Table 7 Responses Regarding the Effectiveness of the Certification System

N	Items	Respondent	Responses												Mean
			1		2		3		4		5		Total		
			f	%	f	%	f	%	f	%	f	%	f	%	
	The certification system of COC was- up -to- date to the required standard	TT	11	6.51	47	27.81	60	35.50	44	26.04	7	4.14	169	100	2.8
		TG	28	22.95	35	28.69	30	24.59	20	16.39	9	7.38	122	100	
		Total	39	13.40	82	28.18	90	30.93	64	21.99	16	5.50	291	100	
2	The COC's registrar office was equipped with the necessary resources to implement the certification system	TT	23	13.61	62	36.69	48	28.40	26	15.38	10	5.92	169	100	2.6
		TG	32	26.23	33	27.05	18	14.75	24	19.67	15	12.30	122	100	
		Total	55	18.90	95	32.65	66	22.68	50	17.18	25	8.59	291	100	
	Certificates awarded by COC were valued as criteria to give priority in employment opportunity, promotion, and entry for higher education	TT	22	13.02	29	17.16	51	30.18	34	20.12	33	19.53	169	100	3.0
		TG	28	22.95	32	26.23	21	17.21	28	22.95	13	10.66	122	100	
		Total	50	17.18	61	20.96	72	24.74	62	21.31	46	15.81	291	100	

Key: TT =TVET Trainers TG= TVET Graduates

The data for item 1 of table 7 reveals that majority of the respondents, 41.58 % (that is, 13.40% strongly disagree and 28.18% disagree) replied that they disagreed with the statement that reads, *"The certification system of COC was- up -to- date to the required standard"*.

In connection with this, the data in Table 7 item 2 indicates that majority of the respondents, 51.55% (that is, 18.90% strongly disagree and 32.65% disagree) reported that they disagreed with the statement that reads, *"The COC's registrar office was equipped with the necessary resources for the implementation of the certification system"*. The data in item 3 of the same table also reveals that majority of the respondents, 38.14 % (that is, 17.18% strongly disagree and 20.96 % disagree) said that they disagreed with the statement that reads, *"Certificates given by COC to the competent individuals were valued as criteria to give priority in employment opportunity, promotion, and entry for higher education"*. However, 24.74% of the respondents replied undecided while 37.12% (that is, 21.31% agree and 15.81% strongly agree) reported that they agreed with the statement that reads, "*Certificates awarded by COC were valued as criteria to give priority in employment opportunity, promotion, and entry for higher education"*. In support of this, TVET officials in their interview and COC experts in their discussion revealed that the competent individuals were being given priorities only in limited governmental bureaus. For instance, one interviewee stated in his own words as: **"ኣብ ቹፃርን ዕቤትን ይኹን ንቑላሊ ስልጠና፣ ብቕዓቶም ብምዘና ንዘረጋገፁ ዜጋታት ቀዳምነት ኣብ ምሃብ ንካልኦት መርዓያታት ንኸውን ስለዘለና ጀሚርናዮ ኣለና"።** Meaning, *"Since we need to be a model for others in giving priorities to competent citizens in employment, promotion, and further training opportunities, we have started*

it". (April 20, 2011). The means of the responses of the TT and TG for items (1-2) of table 7 is below three. Therefore, it is possible to conclude from the result that most respondents have unfavorable perception towards the facilities of the certification system. On the other hand, the mean of the respondents for item 3 in table 7 is three, the ideal mean for majority of the respondents.

This implies that the certification system of COC was poorly organized and the certificates awarded did not yet recognized as requirement for employment, promotion and further training opportunities.

4.6 The Capacity of Tigray COC Domain

Summary of the data gathered regarding the capacity of Tigray COC is presented here.

Table 8 Responses Regarding the Capacity of Tigray COC for IACP

No	Items	Rating scale and Alternatives	Frequency and Percentage of responses						Mean
			TT (N=169)		TG (N=122)		Total (N=291)		
			f	%	f	%	f	%	
1	Leadership and management ability of COC	1 .Very low	21	12.43	32	26.23	53	18.21	2.7
		2. Low	51	30.18	27	22.13	78	26.80	
		3. Moderate	54	31.95	31	25.41	85	29.21	
		4.High	31	18.34	20	16.39	51	17.53	
		5. Very high	12	7.10	12	9.84	24	8.25	
		Total	169	100	122	100	291	100	
2	Availability of qualified and competent human power in COC	1 .Very low	23	13.61	25	20.49	48	16.49	2.7
		2. Low	63	37.28	25	20.49	88	30.24	
		3. Moderate	47	27.81	34	27.87	81	27.84	
		4.High	24	14.20	29	23.77	53	18.21	
		5. Very high	12	7.10	9	7.38	21	7.22	
		Total	169	100	122	100	291	100	
3	Availability of adequate financial resources in COC for the execution of the assessment and certification programs	1 .Very low	22	13.02	37	30.33	59	20.27	2.5
		2. Low	60	35.50	33	27.05	93	31.96	
		3. Moderate	52	30.77	28	22.95	80	27.49	
		4.High	27	15.98	16	13.11	43	14.78	
		5. Very high	8	4.73	8	6.56	16	5.50	
		Total	169	100	122	100	291	100	
4	Availability of adequate material resources in COC for the execution of assessment and certification programs	1 .Very low	38	22.49	39	31.97	77	26.46	2.3
		2. Low	63	37.28	40	32.79	103	35.40	
		3. Moderate	39	23.08	25	20.49	64	21.99	
		4.High	21	12.42	14	11.48	35	12.03	
		5. Very high	8	4.73	4	3.28	12	4.12	
		Total	169	100	122	100	291	100	
5	The COC was free and independent in executing its assessment and certification programs	1.Not at All	29	17.16	46	37.70	75	25.77	2.9
		2.Very Rarely	26	15.38	24	19.67	50	17.18	
		3.Sometimes	32	18.93	15	12.30	47	16.15	
		4.Often	37	21.89	19	15.57	56	19.24	
		5.Very Often	45	26.63	18	14.75	63	21.65	
		Total	169	100	122	100	291	100	
6	During their monitoring activities COC experts conducted researches to improve the implementation of assessment and certification programs	1.SD	22	13.02	31	25.41	53	18.21	2.7
		2.Disagree	52	30.77	28	22.95	80	27.49	
		3.Undecided	55	32.54	29	23.77	84	28.87	
		4.Agree	32	18.93	22	18.03	54	18.56	
		5.SA	8	4.73	12	9.84	20	6.87	
		Total	169	100	122	100	291	100	
7	The organizational structure of COC was appropriate to effectively implement the assessment and certification programs	1.SD	21	12.43	39	31.97	60	20.62	2.6
		2.Disagree	55	32.54	27	22.13	82	28.18	
		3.Undecided	55	32.54	27	22.13	82	28.18	
		4.Agree	21	12.43	21	17.21	42	14.43	
		5.SA	17	10.06	8	6.56	25	8.59	
		Total	169	100	122	100	291	100	

As shown in item 1 of Table 8, majority of the respondents, 45.01 % (that is, 18.21% Very Low and 26.80% Low) revealed that the leadership and management ability of COC was low. This was supported by most interviewees from AC coordinators. Regarding this, one of the interviewees from the AC coordinators stated in his own words as: " **ኣብ** COC **ንፕሮግራም ምዘናንን ሰርቲፊኬሽንን ከዐውት ዝኽእል ብቑዕ ምሕደራን ኣመራርሓን ነይሩ ምባል ኣይካኣልን**"::Meaning, "*It is not possible to say that there was competent leadership and management in COC who could succeed the implementation of assessment and certification programs*". (April 11, 2011).

As the data corresponding to item 2 in Table 8 indicates, majority of the respondents, 46.73% (that is, 16.49% Very Low and 30.24% Low) replied that the availability of qualified and competent human power in COC was low. Similarly, the data in item 3 of Table 8 reveals that majority of the respondents, 57.38% (that is, 30.33 % Very Low and 27.05% Low) reported that the availability of adequate financial resources in COC for the execution of the assessment and certification programs was low. In connection with this, the data in item 4 of the same table also reveals that great majority of the respondents, 62.86 % (that is, 26.46% Very Low and 35.40% Low) said that availability of adequate material resources in COC for the execution of assessment and certification programs was low. The responses obtained during focus group discussion were in line with this idea. Respondents of the FGD confirmed that the COC has shortage of computers, printers, photocopiers, cars, internet access, telephone, and other similar material resources necessary for execution of assessment and certification programs.

The data corresponding to item 5 in Table 8 indicates that majority of the respondents, 42.95% (that is, 25.77 % Not at All and 17.18% Very rarely) replied that the extent to which the COC was free and independent in executing its program was very rare. The responses obtained during focus group discussion, interview, and from open-ended questions agreed with this idea. Focus group discussants agreed that COC could not be independent and authorized because it is organized under TVET. Similarly, one of the interviewee stated in his own word as: "**ማእከል ምርግጋፅ ብቕዓት ሞያ ብመንግስቲ ትኹረት ተዋሂብዎ ካብ** TVET **ወፂኡ ዓርሱ ክኢሉ እንተዘይተጣይሹ ነፃን ገለልተኛን ኮይኑ ዕላማታቱ ከዐውት እዩ ኢልካ ምሕሳብ ዝካኣል ኣይኮነን**":: Meaning, *(Unless*

COC is given due attention by government to be authorized and organized independent of TVET, it would not be possible to think of COC meeting its objectives freely and independently". (March 10, 2011).

The data for item 6 of Table 8 reveals that majority of the respondents, 45.70 % reported that they disagreed with the statement that reads, *"During their monitoring activities COC experts conducted researches to improve the implementation of assessment and certification programs".* The responses obtained during focus group discussion, interview, and from open ended questions were in line with this idea. They unanimously confirmed that Tigray COC conducted no research mainly due to shortage of human, material and financial resources. The data for item 7 of the same table also reveals that majority of the respondents, 48.80% (that is, 20.62% strongly disagree and 28.18% disagree) reported that they disagreed with the statement saying, *"The organizational structure of COC was appropriate to effectively implement the assessment and certification programs".* The responses obtained during focus group discussion, interview, and from open-ended questions are in line with this idea. According to the responses obtained, the organizational structure of COC should have beeen widened having full resources and independent hierarchy. In support of this idea, discussants of FGD invariably indicated that the unsuitable organizational structure of COC and its dependency on TVET bureau could not enable it effectively implement assessment and certification programs. The means of the responses of the TT and TG for items (1-7) is below three. Therefore, it is possible to conclude from the result of table 8 that most respondents have unfavorable perception towards the capacity of Tigray COC for IACP.

In addition, responses on the capacity of Tigray COC obtained from the open–ended questions responded by the assessed TVET trainers and graduates; interviewed assessment center coordinators and TVET bureau officials and participants in FGD are in agreement with the preceding data of the same issue and are summarized as follows:
Low capacity of COC to execute assessment and certification activities

- shortage of competent supervisors or experts in each relevant areas of TVET;
- the assessment results or certificates were not yet trusted and valued by the employers;

- low financial resources of COC for the execution of assessment and certification;
- low material resources of COC for the execution of assessment and certification;
- low level of awareness activities of COC resulted in limited support and participation of the stakeholders;
- lack of independency of COC and its inappropriate organizational structure
- low management and leadership capacity in COC;
- no genuine responses or solutions were given to most of the questions asked by candidates and ACs;
- no frequent assessments wherever and whenever needed or assessments were not accessible as needed;
- no level-based system of assessment was allowed or started in the region;
- no credit accumulation and transfer or CC system of assessment was allowed or started in the region;
- did not create conducive situations for skill–gap training of candidates before and after assessments;
- no solution was given to the unaffordable assessment fees;
- no suitable and consistent assessment schedules;
- delay in issuing certificates for competent candidates;
- competence certificates were being given low value by most of the employers;
- COC did not conduct research to solve the problems and to enhance the strong sides;
- COC did not equally treat all ACs in giving them equal chance to assess candidates;
- COC did not assign competent, trained and committed assessors during assessments;
- lack of ACs owned by COC;
- less secured assessment tools- the same ATs were given again and again; and
- There was information gap between COC and ACs.

5. Poor quality of education and training delivered in universities and TVET institutions
   - The content and level of what the candidates have trained in TVET was not relevant with the assessment being conducted by the COC; and

- The skills acquired by trainees in TVET institutions or universities were found to be inadequate to pass the assessment being given by COC.

From the above data, one can infer that the organizational structure and material, financial as well as human resource capacity of Tigray COC was not appropriate enough to implement the assessment and certification programs effectively.

4.7 The Successes Achieved Through Assessment and Certification Programs

In an attempt to explore information about this issue, the researcher asked his respondents to disclose the extent to which successes were achieved by COC through implementation of assessment and certification programs. Accordingly, their responses are summarized below in table 9.

Table 9 Responses Regarding the Successes Achieved during IACP

No	Items	Respondent	Responses												Mean
			1		2		3		4		5		Total		
			f	%	f	%	f	%	f	%	f	%	f	%	
1	Increased the opportunity of creating qualified and competent work force responsive to the labour market demand	TT	12	7.10	23	13.61	64	37.87	39	23.08	31	18.34	169	100	3.0
		TG	29	23.77	18	14.75	47	38.52	21	17.21	7	5.74	122	100	
		Total	41	14.09	41	14.09	111	38.14	60	20.62	38	13.06	291	100	
2	Identified candidates' weak and strong performances and offered feedback for better improvement	TT	13	7.69	34	20.12	64	37.87	42	24.85	16	9.47	169	100	2.8
		TG	36	29.51	24	19.67	41	33.61	14	11.48	7	5.74	122	100	
		Total	49	16.84	58	19.93	105	36.08	56	19.24	23	7.90	291	100	
3	Encouraged TVET centers to train their students according to the required labor market demand based on the occupational standard	TT	8	4.73	29	17.16	53	31.36	50	29.59	29	17.16	169	100	3.1
		TG	28	22.95	25	20.49	37	30.33	18	14.75	14	11.48	122	100	
		Total	36	12.37	54	18.56	90	30.93	68	23.37	43	14.78	291	100	

As shown in item 1 of Table 9, majority of the respondents (that is, 38.14% of the trainers and the graduates) responded that the extent to which assessment and certification programs increased the opportunity of creating qualified and competent work force responsive to the labour market demand was moderate.

As the data corresponding to item 2 in Table 9 indicates, majority of the respondents, 36.77% (that is, 16.84% Very Low and 19.93 % Low) replied that the extent to which the

assessment process identified candidates' weak and strong performances and offered feedback for better improvement was low. On the other hand, 36.08% of the respondents revealed that it was moderate. However, the response of the majority was in agreement with the data indicated corresponding to item 2 in Table 4 above. As the data indicates, the majority of the respondents, 41.24% (that is, 17.53% Not at All and 23.71% Very Rarely) reported that the extent to which assessors offered guidance and thereby provided feedback on weak and strong performance of candidates for better improvement was very rare. This implies that the overall achievement of the assessment program on this particular issue was low.

The data in item 3 of the same table also reveals that majority of the respondents, 38.15% (that is, 23.37% High and 14.78% Very High) reported that the extent to which the assessment and certification programs encouraged TVET centers to train their students according to the required labor market demand based on the occupational standard was high. The means of the responses of the TT and TG in table 9 for item 1 is three (ideal mean), for item 2 is below three (negative perception towards the feedback given to candidates) and for item 3 is above three implying that majority of the respondents have positive perception towards the successes achieved by COC in motivating people to become competent through assessments.

In addition, other findings on this and other similar issues were obtained from responses to the open–ended questions; interviews and FGD. That is, assessment by COC is:

- Becoming potential criteria for competent citizens to get opportunities of employment, promotion and further training.
- Motivating trainees and candidates to become competent in the assessment and thereby to gain better knowledge and skill.
- Becoming a potential system to create competent citizens who can contribute for the development of their country.
- Initiating trainers to upgrade their knowledge and skill and hence to train their trainees according to the required standard.
- Becoming a base to improve the quality of education and training.

- Building the moral of competent individuals and hence motivating them to perform better in their work.

This implies that even though little successes were achieved through IACP; COC was not fully successful in its effort to implement the programs.

4.8 The Status of the Implementation of Assessment and Certification Programs

This section intended to investigate whether or not the COC implement assessment and certification according to the required standard. To this effect, respondents were asked to weigh the status of the implementation of assessment and certification programs carried out by COC in relation to the four domains.

Table 10 Responses Regarding the Status of the IACP carried out by Tigray COC

No	Items	Rating scale and Alternatives	Frequency and Percentage of responses						Mean
			TT (N=169)		TG (N=122)		Total (N=291)		
			f	%	f	%	F	%	
1	The quality assurance process was valid and reliable, and hence trusted by industries/employers	1.Not at All	24	14.20	40	32.79	64	21.99	2.8
		2.Very rarely	38	22.49	33	27.05	71	24.40	
		3.Sometimes	48	28.40	19	15.57	67	23.02	
		4.Often	32	18.93	12	9.84	44	15.12	
		5.Very Often	27	15.98	18	14.75	45	15.46	
		Total	169	100	122	100	291	100	
2	The extent to which COC has achieved its objectives in implementation of assessment and certification programs	1.Very Low	23	13.61	41	33.61	64	21.99	2.5
		2.Low	52	30.77	29	23.77	81	27.84	
		3.Moderate	61	36.09	34	27.87	95	32.65	
		4.High	25	14.79	11	9.02	36	12.37	
		5.Very High	8	4.73	7	5.74	15	5.15	
		Total	169	100	122	100	291	100	
3	The extent to which candidates were satisfied by assessment and certification activities of COC	1.Very Low	26	15.38	52	42.62	78	26.8	2.4
		2.Low	58	34.32	31	25.41	89	30.58	
		3.Moderate	46	27.22	19	15.57	65	22.34	
		4.High	24	14.20	14	11.48	38	13.06	
		5.Very High	15	8.88	6	4.92	21	7.22	
		Total	169	100	122	100	291	100	
4	The overall assessment process was successful that I was satisfied and hence, I wished I could come and assessed again	1.SD	34	20.12	29	23.77	63	21.65	2.7
		2.Disagree	52	30.77	30	24.59	82	28.18	
		3.Undecided	38	22.49	28	22.95	66	22.68	
		4.Agree	29	17.16	19	15.57	48	16.49	
		5.SA	16	9.47	16	13.12	32	11.00	
		Total	169	100	122	100	291	100	

As can be seen from Table 10 above, the data respective to item 1 indicates that majority of the respondents, 46.39 % (that is, 21.99% Not at All and 24.40% Very rarely) reported that the assessment program carried out by COC was rarely valid and reliable, and hence trusted by industries/ employers.

The data in item 2 of Table 10 indicates that majority of respondents, 49.83% (that is, 21.99% Very Low and 27.84% Low) replied that the extent to which COC has achieved its objectives in implementation of assessment and certification programs was low. Similarly, in item 3 of Table 10, greater proportion of the respondents, 57.38% (that is, 26.8% Very Low and 30.58% Low) revealed that the extent to which candidates were satisfied by assessment and certification activities of COC was low. The data in item 4 of the same table also reveals that majority of the respondents, 49.83% (that is, 21.65% strongly disagree and 28.18% disagree) reported that they disagreed with the statement that reads, *"The overall assessment process was successful that I was satisfied and hence, I wished I could come and assessed again"*.

The above findings were consistent with the findings discussed before in this study. For instance, as was seen in the analysis of each items of table 3, 4, 5, 6, 8, 9, and 10, they were in agreement with this. The means of the responses of the TT and TG for items (1-4) is below three. Therefore, it is possible to conclude from the result of table 10 that majority of the respondents have negative perception towards the status of IACP.

From the above data alone, one can infer that COC was not yet successful in meeting its objectives and hence did not satisfy its beneficiaries.

4.9 The Challenges that Negatively Affected the IACP Being Carried Out by COC

As was indicated in the literature review part of this study, several factors are likely to affect the effective implementation of assessment and certification programs (IACP). In order to identify each problem, the researcher decided not to limit the responses of his respondents. Hence, he collected the information regarding this issue from the open-ended question items filled by the trainers and graduates; from COC documents; interviewed assessment center coordinators and TVET bureau officials and participants in FGD. All the respondents were requested to mention the major problems that impeded the effective IACP in rank order (1-5) according to their severity. Accordingly, the common or/and agreed themes of the responses are summarized as follows:

- Lack of competent assessors;

- Shortage of human, budget and material resources in COC;
- Inefficient assessment administration;
- Shortage of appropriate assessment materials in ACs;
- poor standard of the assessment tools;
- Weak relationships of COC with ACs and employers;
- Low capacity of COC to execute assessment and certification activities such as lack of independency of COC and its inappropriate organizational structure;
- Inefficient certification system;
- Poor quality of education and training delivered in universities and TVET institutions
    - The content & level of what the candidates have trained in TVET was not relevant with the assessment being conducted by the COC; and
    - The skills acquired by trainees in TVET institutions or universities were found to be inadequate to pass the assessment being given by COC.
- Absence of consistent and legal guidelines of COC;
- Low management and leadership capacity of COC; and
- High costs of the assessment materials.

In his intention to identify the major bottlenecks that affect the implementation of assessment and certification in the region, the researcher counted the frequency of responses given to each of the above problems. Accordingly, the rank order of the five major challenges of COC is summarized in table 11.

Table 11 Responses Regarding the Major Challenges that Impede the IACP

No.	Major Challenges encountered	No. of respondents in each rank					Percentage of highest rank
		1	2	3	4	5	
1	Lack of competent assessors	14	6	19	3	9	7.8
2	Shortages of appropriate assessment materials in ACs (machines, equipments, computers, etc..,)	23	7	12	8	7	9.5
3	Inefficient assessment administration	5	10	6	8	13	5.3
4	poor standard of the assessment tools	4	21	13	2	1	8.6
5	low capacity of COC to execute assessment and certification activities such as lack of independency of COC and its inappropriate organizational structure	9	15	6	18	4	7.4
	Total	55	59	56	39	34	

As indicated in Table 11, 23(9.5%) of the respondents ranked item 2 which is shortage of appropriate assessment materials in ACs (machines, equipments, computers, etc..,) to be first; 21(8.6%) of the respondents revealed item 4, poor standard of the assessment tools, to be ranked second; 19(7.8%) of the respondents ranked item1 of the table, lack of competent assessors, to be third; item 5 of the table which is low capacity of COC to execute assessment and certification activities such as lack of independency of COC and its inappropriate organizational structure ranked to be fourth by 18(7.4%) of the respondents and finally, item 3 which is inefficient assessment administration ranked to be fifth by 13(5.3%) of the respondents.

From these findings one can say that shortage of appropriate assessment materials in ACs (machines, equipments, computers, etc..,), poor standard of the assessment tools and lack of competent assessors have severely impeded the IACP.

4.10 Suggested Solutions for the Perceived Problems

In his attempt to identify the solution for the identified problems and hence to improve the IACP, the researcher asked his respondents (of the open-ended questions, FGD and interview) to propose possible solutions. Accordingly, they suggested the following points:

- Assigning assessors who are competent and trained on how to assess and have relevant industry experience;
- Improving the material and financial resources of COC; introducing level based assessment system; revising and improving assessment fees. For instance, the fees should be subsidized by government and cost sharing system of assessment should be introduced; Increasing access to assessment wherever and whenever needed; COC should be free and independent having appropriate organizational structure; having consistent and suitable assessment schedules;
- Capacitating the human resource of COC by giving further training and assigning the required number of competent supervisors in relevant occupations. COC coordinators or experts should take sufficient training on assessment procedures and guidelines and must pass assessment by occupations related to TVET;

conducting research to identify and give immediate solutions to the problems encountered during assessments ; building sound reporting and data base system; improving the management and leadership capacity of COC; frequent monitoring and evaluation; having consistent and legal guidelines of COC; establishing consulting committee; giving value to the certificates offered by COC to the competent individuals; facilitating skill–gap training of candidates;

- Capacitating the existing ACs and adding other facilitated assessment centers from industries; COC should have its own standardized assessment centers; allowing candidates to appeal on their assessment results; intensifying awareness creation activities to improve the participation, involvement and support of stakeholders; building the capacity of AC personnel in order to make them committed and cooperative during assessment;
- Using standardized and piloted assessment tools for assessment; Securing the assessment tools- the same ATs should not be given again and again;
- Assigning competent supervisors in each area of assessment who can check the assessment materials if they are functional, available, adequate, and precise/ accurate prior to the start of assessments.
- Allowing credit transfer and accumulation or CC system –allowing candidates to be assessed only by the part of the assessment package which they did not pass, rather than enforced them to take the whole package again;

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

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

5.1. SUMMARY OF THE MAJOR FINDINGS

The purpose of this study was to look into the implementation of assessment and certification carried out by COC in Mekelle Zone of Tigray Regional State and point out the prevailing problems and thereby forward recommendations to solve the problems.
In order to achieve this purpose, basic questions were raised that addressed the challenges faced and the successes achieved in IACP in the region/zone. To this effect issues related to this focus area of study such as the status of IACP, the major successes of Tigray COC in IACP and the main challenges facing to Tigray COC in IACP were raised.

The respondents to the descriptive survey were 169 TVET teachers and 122 TVET graduates. In addition, documents of COC were reviewed; interview was conducted with sixteen AC coordinators and two TVET officials; and FGD was held with the twenty one COC experts. As to the researchers' knowledge, these all together are believed to be representatives for the study.

The data obtained were analyzed by applying frequency of numbers, percentages, rank order and weighted mean using tables. As a result of the data analysis of the study, the following major findings were obtained:

1. There were no adequate appropriate assessment centers (ACs) from industries. That is, the availability of appropriate assessment materials and cooperative and committed human power in the ACs were low. (See Table 3).
2. The availability of competent and committed industry assessors was low. That is, the assessors rarely used established methods for the collection of evidences of competence; rarely offered guidance and feedback on weak and strong

performance of candidates; had no verifiable relevant industry experiences and knowledge of the occupation at or above the level being assessed; and did not make allowable adjustments without compromising quality to accommodate the interests of the candidates. (See Table 4).

3. The performances of Tigray COC in assessment administration were not satisfactory. That is, awareness creation activities were made rarely; the frequency of assessment offered on demand of the candidates was low; the COC experts did not regularly evaluate assessment & certification activities for better improvements; the system rarely allowed accumulation of achieved units of competence; the assessment fees were not fair for candidates to be assessed again & again; assessment conducted by qualification level was rare; and the system rarely recognized prior learning through assessment. (See Table 5).
4. The standard, relevance and effectiveness of the assessment tools used were low. That is, the assessment system rarely used standardized assessment tools; the relevance of the assessment tools to the Occupational Standards (OS) was low; and pilot tests were made rarely before large scale implementation of the assessment tools for assessment. (See Table 6).
5. The certification system of COC was not up -to- date to the required standard and hence was not effective. That is, the COC's registrar office was not equipped with the necessary resources for the implementation of the certification system and the certificates given by COC to the competent individuals were not yet valued as criteria to give priority in employment opportunity, promotion, and entry for higher education. (See Table 7).
6. The Capacity of Tigray COC for IACP was low. That is, the availability of adequate financial, material and human resources in COC for the execution of the ACP was low; the COC was not free and independent in executing its programs; the organizational structure of COC was not appropriate to effectively implement the assessment and certification programs; the leadership and management ability of COC was low; and the COC did not conduct researches to improve the IACP. (See Table 8).
7. Regarding the successes achieved during the IACP, the extent to which assessment and certification programs increased the opportunity of creating

qualified and competent work force responsive to the labour market demand was moderate. However, the extent to which the assessment processes identified candidates' weak and strong performances and offered feedback for better improvement was low implying that the COC did not fully achieve its objectives. On the other hand, there were few successes achieved during IACP in that COC became a potential to create competent citizens who can contribute for the development of their country by encouraging trainers, trainees and other citizens to upgrade their knowledge and skill according to the required labor market demand based on the occupational standard. (See Table 9).

8. The Status of the IACP carried out by Tigray COC was low. That is, the extent to which COC has achieved its objectives in IACP was low; the overall assessment process was not successful; the assessment program carried out by COC rarely became valid and reliable, and hence was not trusted by industries/ employers; and candidates were not satisfied by assessment & certification activities of COC (See Table 10).
9. The major challenges that impede the IACP were lack of competent assessors; shortage of human, budget and material resources in COC; inefficient assessment administration; shortages of appropriate assessment materials in ACs (machines, equipments, computers, etc,.); poor standard of the assessment tools; weak relationships of COC with ACs and employers; low capacity of COC to execute assessment and certification activities such as lack of independency of COC and its inappropriate organizational structure; inefficient certification system; poor quality of education and training delivered in universities and TVET institutions; absence of consistent and legal guidelines of COC; low management and leadership capacity of COC; and high costs of the assessment materials. Out of these, the most severe ones were shortage of appropriate assessment materials in ACs (machines, equipments, computers, etc..,), poor standard of the assessment tools and lack of competent assessors respectively. (See Table 11).

5.2. CONCLUSIONS

In light of the findings of the study the following conclusions were drawn:

1. Regarding facilities of ACs, one can conclude that the candidates were taking their assessments in ACs with inadequate or/and poor quality assessment materials and less cooperative AC coordinators which is against what the assessment directive recommends. This may be attributed to low efforts made by COC in accrediting, capacitating and convincing ACs to make them cooperative and supportive during assessments. As a consequence, these may impede the effective IACP.
2. Regarding the capacity of assessors, the assessment was being conducted in a ground where there were no competent and committed assessors. From this, one can understand that it happened against what has been recommended in assessment directive of MOE (2010) about the qualification, experience, competence and training of assessors during their accreditation. Hence, it is not difficult to conclude that this kind of situation can have an adverse effect on meeting the objectives of occupational ACP.
3. Concerning the assessment administration of the COC, the study disclosed that assessment has been administered only in limited capacity of COC experts which ultimately lead to inefficient awareness creation activities; assessment conducted only in limited areas and qualification levels and dissatisfaction of candidates in assessment.
4. As revealed by the study, assessments were being conducted with poor standard of assessment tools. This implies that most of the assessment tools which have been used for the assessments did not satisfy the required industry standards. From this, it is possible to conclude that this could be one reason for low recognition and acceptance of the value of assessment and certification by the stakeholders particularly the industries who are the supposed end user of TVET graduates.
5. Regarding the certification system, one can concluded that COC had problems in issuing the certificates timely and accurately and in valuing the certificates so as to keep the moral and benefits of the competent citizens. Hence, the certification

system of COC was not time saving, accurate, and up to date to the required standard. This implies that COC had no modernized system of certification and legal enforcement to value the certificates of competence awarded to the competent citizens. This may be attributed to the shortage of the necessary material and human resources and lack of its independence and authority to accomplish its tasks of certification to the required standard.

6. Regarding the capacity of Tigray COC, it is not difficult to conclude that Tigray COC staff had shortage of financial, material and human resources in executing the assessment and certification tasks regularly and timely. In addition, the COC was not free and independent and its organizational structure was not appropriate. These all together may lead to the shortage of appropriate professionals who can effectively lead the organization and conduct researches for its improvement. This kind of situation can have a negative effect in meeting the objectives of COC.
7. Regarding the successes achieved, it can be concluded that the COC did not yet achieve its objectives. Hence, this kind of situation can have an adverse effect in IACP. However, as most respondents agreed, it had relatively better performance in promoting the advantages of being assessed and certified to most training institutions, industry workers, trainers, trainees and others. As a result, training institutions started to train their students according to the required standard and many people are being motivated to continuously upgrade their knowledge and skills in order to be competent.
8. Regarding the status of COC, it can be inferred that the assessment and certification programs have not been successfully implemented in relation to the objectives of COC. Therefore, the status of the COC in this regard was low showing that combined efforts are still required.
9. From the foregoing discussion alone, one can infer that the major bottlenecks that affected the quality, relevance, and effectiveness of ACP were shortage of appropriate assessment materials in ACs (machines, equipments, computers, etc..,); poor standard of the assessment tools; lack of competent assessors; shortage of human, budget and material resources in COC and inappropriate organizational structure of COC and its lack of independency from TVET.

5.3. RECOMMENDATIONS

On the basis of the findings obtained and conclusions drawn the researcher forwarded the following suggestions in order to improve the IACP which are the focus areas of the TVET strategy in the country.

1. In connection with the inadequate facilities of ACs, the regional COC need to strive further to find appropriate industry ACs; should capacitate the available ACs in order to equip them with the required assessment materials and should create adequate awareness among relevant stakeholders and beneficiaries including AC coordinators in order to make them cooperative in giving real support during IACP. In addition, COC should have its own assessment centers. This could be realized by integrated efforts exerted by COC and its stakeholders including governmental and non -governmental organizations, chamber of commerce, industry/employers and other citizens. However, government must assume the primary responsibility for building large units of ACs establishments.
2. Regarding the low capacity of assessors, the COC need to strive to get assessors who have verifiable relevant current industry experience and knowledge of the occupational working area at or above the level being assessed. The COC need also to offer appropriate and adequate training to the competent assessors on how to assess candidates.
3. Before full implementation of assessment, COC must ensure that a comprehensive period of testing has undertaken, taking into account the system's functionality and capacity. Any lessons learnt must be incorporated into the system. That is, COC must have procedures in place to undertake regular system of testing and reviewing once the assessment system is in operation to ensure continued reliability. COC should also introduce level based system of assessment and the system of credit accumulation and transfer or CC system of assessment; In addition, assessments should be accessible to candidates whenever and wherever they need them and prior learning should be recognized.
4. Standardized assessment tools should be prepared based on the established OS. That is, candidates should be assessed by standardized ATs that include proportional units of competences in each of the TVET areas. ATs for each

levels of an area including low level occupations such as level I and level II should be available. There should also be ATs particularly set to candidates who wanted to take assessment for certificate of competence (CC). The COC should have strong mechanism of maintaining the security and authenticity of each AT. For instance, the same assessment tool should not be used over and over. In addition, COC must have secured and reliable AT data storage.

5. To make the registrar system fully secured, time saving, accurate and up -to- date to the required standard, it should be equipped with the necessary facilities, skilled human power, and legislation. There should be legal enforcement to value the certificate of competence awarded to the competent citizens by giving priorities to the competent individuals in providing employment, promotion and higher education opportunities. This should clearly be stated and declared as important issue in proclamation of COC. The other most important thing to value the certificate of competence is to make it trusted by employers.
6. Strengthening the capacity of COC. That is, the organizational structure of COC should be changed by increasing its capacity of human, financial and material resources. In addition to this, the involvement and support from the stakeholders of COC in this area can best be accomplished through facilitating conditions that would enable them provide resources as much as they could. COC must ensure that suitable support facilities are in place for ACs and that there is a comprehensive contingency plan should any part of the system fail. With regard to this, COC need to identify other sources of support. In order to effectively and independently implement ACP, COC should be independent of TVET.
7. For effective IACP, it is necessary to have well informed and strongly motivated stakeholders. Thus, stronger awareness needs to be created through the establishment of promotion system among stakeholders focusing on mutual benefits derived from the ACP. Creating favorable situations for skill–gap training to the candidates; conducting research to identify and give immediate solutions to the problems being encountered during assessments; and establishing Consulting Committee and Technical Work Group (TWG) of COC from independent bodies and stakeholders of COC to contribute in IACP.

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APPENDICES

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

DEPARTMENT OF BUSINESS EDUCATION

Questionnaire to Be Filled By TVET Teachers Who Took Occupational Assessment

General Direction:

Dear Respondents! Assessment and Certification programs are being implemented in Tigray Center of Competence (COC) since its commencement in 2009. Therefore, the purpose of this questionnaire is to gather information about the success, status and challenges in implementation of these programs by COC vis-a-vis meeting its objectives. The confidentiality of your response will strictly be held as the data will be used only for academic purpose. That is the purpose of this study is purely academic and no way affects you personally or organizationally. The findings may serve COC planners, candidates, training centers, and employers in development endeavor. So your genuine, frank and timely responses are indispensable and determine the success of this study. The information that you will provide will determine the quality of the study. So you are kindly requested to fill the questionnaire genuinely and honestly.

The questionnaire has two parts: the first is about your general background information where as the second is about the implementation of assessment and certification programs.

Dear respondents! Please note that:

- You do not need to write your name on the questionnaire.
- You need to respond all of the items.
- You should not consult other respondents to fill it.
- Put a tick (√) mark inside the box provided or write briefly your responses as needed.

Part one: Personal Information of Respondents

Sex: a) Male b) Female

1. Age: a)20 years and below b) 21-25 c)26-30 d)31-35 e) 36 years and above
2. Educational Level_____
3. Area of specialization _____

Part Two: Questions Regarding the Implementation of Assessment and Certification Programs

Section A. Questions Related to the Challenges and Status of the Implementation of Assessment and Certification Programs in Tigray COC

Direction 1 Please indicate how often the following activities of assessment and certification programs have been carried out by COC in your Region/Zone. Give your response by making "√" in the box provided corresponding to each activity. Choose among the following rates.

1=Not at All 2= Very Rarely 3= Sometimes 4= Often 5= Very Often

No	Activities	Responses				
		1	2	3	4	5
1	Promotion of COC to community, industry and other stakeholders in order to get real support and participation in assessment and certification programs					
2	Assessors used established methods for the collection of evidence of competence					
3	During assessment the assessors offered guidance and thereby provided feedback on weak and strong performance of candidates for better improvement					
4	Candidates were allowed to appeal on assessment decisions whenever the appropriate assessment procedures have not been followed or if there was evidence of discrimination or/and corruption					
5	The system allowed progressive assessment by qualification level, starting from the lowest available qualification level up to the highest level					
6	The system allowed accumulation of achieved units of competence or credit accumulation and transfer leading to a National Certificate (NC)					
7	Prior Learning was recognized by the assessment and certification programs					
8	The COC was free and independent in executing its assessment and certification programs					
9	The quality assurance processes was valid, reliable, and hence trusted					
10	Pilot tests were made before large scale implementation of the assessment tools for assessment					
11	The assessment tools were standardized					

Direction 2 Dear respondents! After carefully reading each item in the table, please give your response by making "√ " in the box provided corresponding to each performance score value among the following rates:

VL=Very Low L= Low M= Moderate H= High VH= Very High

No	Items	Responses				
		VL	L	M	H	VH
1	The availability of sufficient appropriate assessment materials in assessment centers.					
2	The availability of competent industry assessors					

3	Leadership and management ability of COC					
4	Availability of qualified and competent human power in COC					
5	The extent to which COC has achieved its objectives in implementation of assessment and certification programs					
6	The availability of cooperative and committed human power in assessment centers					
7	Relevance of the assessment tools to the Occupational Standards (OS)					
8	The extent to which candidates were satisfied by assessment and certification activities of Tigray COC					
9	Availability of adequate financial resources in COC for execution of the assessment and certification programs					
10	Availability of adequate material resources in COC for execution of the assessment and certification programs					
11	The frequency of assessment offered on demand of the candidates					

Direction 3 For each of the following statements, please mark the level of your agreement by "√" in the box corresponding to each item to indicate your response among the following rates:

SD = Strongly Disagree **D= Disagree** **UD= Undecided** **A= Agree**

SA= Strongly Agree

No	Items	Responses				
		SD	D	UD	A	SA
1	There were sufficient appropriate assessment centers from industry					
2	The certification system of COC was- up -to- date to the required standard					
3	The COC's registrar office was equipped with the necessary resources to implement the certification system					
4	During their monitoring activities COC experts conducted researches to improve the implementation of assessment and certification programs					
5	Assessors had verifiable relevant industry experiences and knowledge of the occupation at or above the level being assessed					
6	Assessors made allowable adjustments without compromising quality, to accommodate the interests of the beneficiaries/ candidates					
7	COC experts regularly evaluated assessment and certification activities for better improvement					
8	The overall assessment was successful that I was satisfied and hence, I wished I could come and assessed again					
9	The assessment fee was fair for a candidate to be assessed again and again					
10	Certificates awarded by COC for the competent individuals were valued as criteria to give priority in employment opportunity, promotion, and entry for higher education					
11	The organizational structure of COC was appropriate to effectively implement the assessment and certification programs					

Direction 4 List the **problems** which you think hinder the effective implementation of assessment and certification programs in relation to meeting its objectives, in order of their severity from higher to lower

A._____
B._____
C._____
D._____
E._____

Direction 5. What solutions do you recommend to avoid such barriers or challenges?

A._____
B._____
C._____
D._____
E._____

Section B. Questions Regarding the Successes of Assessment and Certification Programs

Direction1. To what extent does Tigray COC so far achieve its objectives in implementing assessment and certification programs? Dear respondents! Please give your response by making "√ " in the box provided corresponding to each performance score value among the following rates:

VL=Very Low L= Low M= Moderate H= High VH= Very High

No	Successes Achieved	Responses				
		VL	L	M	H	VH
1	Increased the opportunity of creating qualified and competent work force responsive to the labour market demand					
2	Identified candidates' weak and strong performances and offered feedback for better improvement					
3	Encouraged TVET centers to train their students according to the required labor market demand based on the occupational standard					

4. What other successes do you perceive that are being achieved by implementing assessment and certification program? _____

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please go back and ensure that you have completed responding for all of the questions

Thank you for completing the questionnaire!

ኣብ ዩኒቨርስቲ ኣዲስ ኣበባ

ቤት ትምህርቲ ድህረ ምረቓ
ቢዝነስ ኢጁኬሽን ዲፓርትመንት

ምዘና መረጋገፂ ብቕዓት ሞያ ብዝወሰዱ ሙሩጆት ትካላት TVET ዝምላእ መሕትት

/Questionnaire to be Filled by Assessed TVET Graduates/

ሓፈሻዊ መምርሒ

ዝተኸበርኩም ምላሽ ወሃብቲ! ዕላማ እዚ መፅናዕቲ ናይ ክልልና COC ኣብ ከይዲ ትግበራ ስራሕቲ ምዘና ምርግጋፅ ብቕዓት ሞያን ሰርቲፊኬሽንን ዕላማታቱ ንክዐውት ኣብዝገብሮም ዓዕርታት ስካብ ሕዚ በዚሑም ዘሎ ብርኪ፣ ዝረኸቦ ውፅኢትን ዘጋጠምዎ ፈተንቲ ፀገማትን ብዝምልከት ዘድሊ ሓበሬታ ብምእካብን ብምትንታንን እዋናዊ ፍታሕ ንምቕማጥ'ዩ።
እቲ ዝርከብ ሓበሬታ ንኣካዳሚያዊ መፅናዕቲ ጥራይ ዝውዕል ብምኻኑ ሚስጢራዊነቱ ዝተሓለወ'ዩ።ብተወሳኺ ውፅኢት እቲ መፅናዕቲ ኣብ ቐፃሊ ብቀንዱ ንተመዘንቲ፣ንማእከል መሰልጠንትን ንቐፀርቲ ኣካላትን ስለዝጠቅም ቅኑዕን እዋናውን ሓበሬታ ብምሃብ ንዕውትነቱ ግደኣም/ኣን ንክፃወቱ/ታ ይሕተቱ/ታ።

ዝተኸበርኩም ምላሽ ወሃብቲ! መልሲ እንትትህቡ

- ሽምኩም ምፅሓፍ ኣየድልን
- ንኩለን ሕቶታት ምምላስኩም ደጋጊምኹም ኣረጋግፁ
- ንካልኦት ሰባት ኣይተማኽሩ
- ንምርጫኹም ኣብ ውሽጢ ዝተውሃቡ ሳንዱኞት ምልክት "√" ግበሩ ወይ ከምኣደላይነቱ ምላሽኩም ብሓፂር ፅሓፉ

ንምትሕብባርኩም ኣቐዲመ የመስግን!

ክፍሊ ሓደ፡ ውልቀ ሓበሬታ ወሃብቲ ምላሽ

1. ሽም ዝተመረቐካሉ/ክሉ መሰልጠኒ ትካል ወይ ኮሌጅ _____
2. ፆታ a) ተባዕታይ b) ኣንስታይ
3. ዕድመ a)20 ዓመትን ትሕቲኡን b)21-25 c)26-30 d)31-35 e)36ን ልዕሊኡን
4. ብርኪ ትምህርቲ _____
5. ዓይነት ዝሰልጠንካሉ/ክሉ ሞያ_____

ክፍሊ ክልተ፡ ትግበራ ምዘናንን ሰርቲፊኬሽንን ብዝምልከት ዝቐረቡ ሕቶታት

ሀ. ከይዲ ትግበራ ፕሮግራም ምዘናን ሰርቲፊኬሽንን ሐዚ ዘለዎ ብርክን ፀገማቱን ብዝምልከት

መምርሒ 1 ንሕድሕድ እዞም ዝስዕቡ ንጥፈታት ንምርጫኹም ምልክት "√" ኣብ ሳንዱቓት ብምግባር መልሱ። ነዞም ዝስዕቡ መማረፅታት ተጠቐሙ።

1 = ምንም 2= ሳሕቲ 3= ሓደሓደ ግዜ 4 = መብዛሕቲኡ ግዜ
5 = ዳርጋ ኩሉሻፅ

ቁ	ንጥፈታት	ምላሻት				
		1	2	3	4	5
1	ኣብ ስራሕቲ ምዘናን ሰርቲፊኬሽንን ተሳትፎኡም ብምጉልባት ደገፍም ንክህቡ ንማሕበረሰብ፣ንኢንዳስትሪን ንካልኦት ይግበኣና በሃልትን ብ COC ምልዕዓል ይግበር እዩ					
2	መዘንቲ ካብ ተመዘንቲ ትኽክለኛ መረዳእታ ንምእካብ ዘኽእሎም ደረጅኡ ዝሓለወ ሜላ ኣተኣኻኽባ መረዳእታ ይጥቀሙ እዮም					
3	መዘንቲ ንተመዘንቲ ብትኽክል መዚኖም ብእዋኑ ድኹምን ጥንኩርን ሳኢታቶም ዝሕብር ግብረ መልሲ ይህቡ እዮም					
4	መዘንቲ ኣድልዎ እንትፍፅሙ ወይ ብትኽክል እንተዘይመዚኖም ተመዘንቲ ኣብ ውሳነ እቲ ምዘና ይግባኣኒ ክብሉ ይፍቀድ እዩ					
5	እቲ ስርዓት ምዘና ካብ ታሕቲ ንላዕሊ ንዘለው ብርክታት ሞያ (Levels) ኩሉም የጠቓልል እዩ					
6	እቲ ስርዓት ምዘና ስካብ ሃገራዊ ሰርቲፊኬት ብቐዓት ሞያ ዝበፅሕ ተመዘንቲ ዝሓለፉሉ ሕድሕድ ክፋል ብቐዓት ንክእከብ /Credit accumulation and transfer/ የፍቅድ እዩ					
7	እቲ ስርዓት ምዘና ብስልጠና ጥራሕ ዘይኮነስ ብልምዲ ዝተረኽበ ብቐዓት ሞያውን ተቐቢሉ የረጋግፅ እዩ					
8	እቲ ማእከል ምዘና ምርግጋፅ ብቐዓት ሞያ (COC) ነፃን ገለልተኛን እዩ					
9	ከይዲ እቲ ምዘና ትኽክለኛ፣ተዓማማፋይ፣ፍትሓውን ተኣማናይንዩ					
10	እቶም መሳርሒ ምዘናታት /Assessment tools/ ቅድሚ ብሰፊሑ ንምዘና ተግባር ኣብ ስራሕ ምውዓሎም ኣቐዲሞም ብፈተነ ይረጋገፁ እዮም					
11	ብሕድ ሕድ ሞያ ዝዳለው ዘለው መሳርሒ ምዘናታት /Assessment tools/ ስታንዳርዶም ዝሓለው እዮም።					

መምርሒ 2 ንሕድሕድ እዞም ዝስዕቡ ንጥፈታት ንምርጫኹም ምልክት "√" ኣብ ሳንዱቓት ብምግባር መልሱ። ነዞም ዝስዕቡ መማረፅታት ተጠቐሙ።

1 = ኣዚዩ ትሑት 2 = ትሑት 3 = ማእከላይ 4 = ልዑል 5= ኣዚዩ ልዑል

ቁ	ንጥፈታት	ምላሻት				
		1	2	3	4	5
1	ኣብ መመዘኒ ማእከላት ዝርከቡ መጠንን ብቐዓትን ኣግባብነት ዘለዎም ናይ ምዘና					

	ማሽናት፣ መሳርሕታትን እታወታትን ካልኦት ቀረባትን					
2	ብቕዓት፣ ውፉይነትን ተወዳዳራይነትን በብሞይኡ ይምዝኑ ዘለው መዘንቲ					
3	ኣብ ማእከል ምርግጋፅ ብቕዓት ሞያ (COC) ዘሎ ናይ ምሕደራን ናይ አመራርሓን ክእለት					
4	ብቕዓትን በዝሕን ኣብ ማእከል ምርግጋፅ ብቕዓት ሞያ (COC) ናይ ዝርክብ ብዓል ሞያ					
5	እቲ ማእከል ምርግጋፅ ብቕዓት ሞያ (COC) ማዕረ ክንደይ ዕላምኡ ኣዐዊቱ ኢልኩም ትኣምኑ?					
6	ኣብ መመዘኒ ማእከላት ዘሎ ናይ ውፉይነትን ምትሕብባርን መንፈስ					
7	ዝምድና መሳርሒታት ምዘና (Assessment tools) ምስ ብኢንዳስትሪ ዝተዳለወ ብርኪ ሞያ (Occupational Standard)					
8	ተመዘንቲ በቲ ዝወሃብ ምዘናን ስራሕቲ ሰርቲፊኬሽንን ማዕረ ክንደይ ሕጉሳት እዮም?					
9	ኣብ ማእከል መረጋገፂ ብቕዓት ሞያ (COC) ዘሎ ንምዘናንን ሰርቲፊኬሽንን ዝውዕል ፋይናንሳዊ ሃፍቲ					
10	ኣብ ማእከል መረጋገፂ ብቕዓት ሞያ (COC) ዘሎ ንምዘናንን ሰርቲፊኬሽንን ዝውዕል ንዋታዊ ሃፍቲ					
11	ስራሕቲ ምዘናንን ሰርቲፊኬሽንን ተመዘንቲ ኣብ ዝደልዩዎ እዋንን ቦታን ኣብ ምክያድ					

መምርሒ 3 ንሕድሕድ እዞም ዝስዕቡ ንጥፈታት ንምርጫኹ ምልክት "√" ኣብ ሳንዱቓት ብምግባር መልሱ። ነዞም ዝስዕቡ መማረፅታት ተጠቐሙ።

1 = ኣዚየ ኣይስማመዐሉን **2 = ኣይስማመዐሉን** **3 = ሞንጎኛ እየ**
4 = ይስማመዐሉ **5= ኣዚየ ይስማመዐሉ**

ቁ	ንጥፈታት	ምላሻት				
		1	2	3	4	5
1	በብሞያኡ ንምዘና ዝኾኑ እኹላት ዝተማለኡ ናይ ኢንዳስትሪ መመዘኒ ማእከላት ኣለው					
2	ኣብዚ እዋንዚ ስርዓት ሰርቲፊኬሽን COC ብሰሌጠኑ፣ ብፅሬቱ፣ ብደሕንንነቱን ብዘበናዊነቱን በቲ ዝድለ ስታንዳርድ ይኸይድ ኣሎ					
3	ናይ COC ረጂስትራር አድለይቲ ብዝኾኑ ናውትን ኣግባብነት ብዘለዎ ዝሰልጠነ ሓይሊ ሰብን ዝተማልአዩ					
4	COC ከይዲ ትግበራ ምዘናን ሰርቲፊኬሽንን ፕሮግራም ንምምሕያሽ ዝሕግዝ መፅናዕቲ ይገብርዩ					
5	መዘንቲ ማዕረ ወይ ልዕሊ እቲ ንተመዘንቲ ዝምዝንሉ ብርኪ ሞያ ጭቡጥን ብምዘና ዝተረጋገፀ ብቕዓትን ኣግባብነት ዘለዎ ናይ ኢንዳስትሪ ልምዲ ስራሕ ኣለዎምዩ					
6	መዘንቲ ንፅሬት ከይተፃብኡ ዝፍቀድ ምትዕርራይ ብምግባር ከምኩነታቱ ድሌት ተመዘንቲ ንከማልኡ ይፅዕሩ እዮም					
7	ክኢላታት COC ትግበራ ምዘናን ሰርቲፊኬሽንን ዝበለፀ ንክመሓየሽ ብቑፃሊ እናገንገሙ ምትዕርራይ ይገብሩ እዮም					
8	ዕውት ምዘና እናተኻየደ ስለዝኾነን ስለዝዓገብኩሉን እንተዘይሓሊፈውን ኣብ ቑፃሊ እዋን መሚአ ንክምዘን ድሌት አሕዲሩለይ እዩ					

9	እቲ ንምዘና ዝኽፈል መጠን ገንዘብ ፍትሓዊ ስለዝኾነ ደጋጊመ ክምዘን ይኽእል እየ					
10	ኣብ ቑፃርን ዕቤትን ስራሕ ኮነ ላዕለዋይ ትምህርቲ ኣብ ምእታው ብ COC ተመዚኖም ሞያዊ ብቕዓቶም ንዘረጋገፁ ሞያተኛታት ቀዳምነት ይወሃቦምዩ					
11	መሓውራዊ ኣወዳድባ COC ክልልና ስራሕቲ ምዘናን ሰርቲፊኬሽንን ብብቕዓት ንምፍፃም ምችው እዩ					

መምርሒ 4 ኣብዚ እዋንዚ ብክልልና COC ይትግበር ንዘሎ ፕሮግራም ምዘናን ሰርቲፊኬሽንን የተዓናቕፉ እዮም እትብሎም/ዮም ቀንዲ ፀገማት ካብ ዝለዓለ ናብ ዝተሓተ ብቕደም ስዓብ ዘርዝር/ሪ

1. _____
2. _____
3. _____
4. _____
5. _____

መምርሒ 5 ነዞም ፀገማት ንምፍታሕከ እንታይ ክግበር ኣለዎ ትብል/ሊ?

1. _____
2. _____
3. _____
4. _____
5. _____

ለ. ብምዘና ምርግጋፅ ብቕዓት ሞያን ሰርቲፊኬሽንን ስካብ ሐዚ ዝተረኽቡ ረብሓታት/ ዓወታት ብዝምልከት ዝቐረቡ ሕቶታት

መምርሒ 6 ንሕድሕድ እዞም ዝስዕቡ ረብሓታት/ ዓወታት ምዘናን ሰርቲፊኬሽንን ንምርጫኹም ምልክት "√" ኣብ ሳንዱቓት ብምግባር መልሱ። ነዞም ዝስዕቡ መማረፅታት ተጠቐሙ።

1 = ኣዚዩ ትሑት 2 = ትሑት 3 = ማእከላይ 4 = ልዑል 5 = ኣዚዩ ልዑል

ሪ ጋ	ረብሓታት ምዘናንን ሰርቲፊኬሽንን	ምላሻት				
		1	2	3	4	5
1	ዕዳጋ ዝጠልቦ ብቑዕ ሓይሊ ሰብ ንክፈሪ ኣብ ምሕጋዝ ዝነበሮ ግደ					
2	ብምኽንያት ድሕሪ ምዘና ዝወሃብ ግብረ መልሲ (Feedback)ብቕዓት ተመዘንቲ ንክመሓየሽ ኣብ ምሕጋዝ ዝነበሮ ተራ					
3	ብመሰልጠኒ ትካላት ዝወሃቡ ስልጠናታት ዕሬቶም ንክመሓየሹ ዘሕደሮ እወንታዊ ፅልዋ					

4.ስካብ ሐዚ ብምዘናንን ሰርቲፊኬሽንን ዝተረኽቡ ካልኦት ረብሓታት/ ዓወታት እንተሃልዮም ብሓፂሩ ይዘርዘሩ።

_____

_____

ንዝቐረቡ ኩሎም ሕቶታት ምምላስኩም ኣረጋግፁ። ንቕኑዕ ምላሽኩም ደጊመ የመስግን።

ADDIS ABABA UNIVERSITY

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DEPARTMENT OF BUSINESS EDUCATION

Interview Guide for Officials of the Regional COC bureau and Assessment Center Coordinators in Mekelle Zone

I. Background Information:

- Qualification_____ Sex____ Work experience_____

II. Interview Guide Questions on Implementation of Occupational Assessment and OACP Carried Out by the COC:

1. How do you explain the start and the current status of COC in the Region/Zone?
2. What efforts have been made to make the COC and ACs inclusive and welcoming?
3. Could you brief me on the support being given by the government, relevant stakeholders and the community to facilitate the IACP?
4. What major challenges/problems have you perceived that negatively affected the quality, relevance, and effectiveness of the current ACP in the Region/Zone?
    - Developing a supportive and inclusive leadership and management in COC
    - Having assessment centers with full capacity for assessment
    - The availability of effective assessors as required by the COC directives
    - Assessment administration activities of the COC;
    - Effectiveness of awareness creation and establishing partnership and collaboration of COC with its stakeholders and beneficiaries (assessment centers, assessors, candidates and employers/industry)
    - Availability of standardized, relevant, and effective assessment tools for all occupations
    - Making the assessment responsive to the diverse occupations and candidates' needs and the effectiveness of certification system
    - The status of financial, material and human resources of COC

5. What solutions do you recommend for the future?
6. What do you think are the successes achieved by Tigray COC in IACP?
7. What additional ideas you like to add regarding the IACP?

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Focus Group Discussion Guide (FGD) for Experts of Tigray COC (both Pilipino and Ethiopians)

1. How do you describe the adequate and effective involvement of the following stakeholders in the implementation of occupational assessment and certification program (OACP)?

- Assessment centers
- Candidates and Assessors
- Industry/ Employers
- The community, governmental sectors, NGOs, and other members of the society

2. How do you mention the inclusive support of the COC leadership and management in facilitating the implementation of occupational assessment and certification program (OACP)?

3. Could you describe the efforts that have been made to create conducive environment of COC (Physical and social environment) for facilitating its activities in order to meet its objectives.

4. How do you explain the efforts made by COC to make the following components of OACP responsive to the effective implementation of the program?

- Assessors
- Assessment Centers
- Assessment Tools

5. What challenges/problems have you perceived that negatively affect the quality, relevance, and effectiveness of the current assessment and certification program in the Region/Zone? Regarding:

- Developing a supportive and inclusive COC environment
- Having assessment centers with full capacity for assessment
- The availability of effective assessors as required by the COC directives
- The assessment administration activities of COC

- Effectiveness of awareness creation and the relationship between COC and its stakeholders and beneficiaries
- Availability of standardized, relevant, and effective assessment tools for all occupations
- Making the assessment responsive to the diverse occupations and candidates' needs
- Developing an inclusive leadership and management in COC
- Establishing partnership and collaboration with assessment centers, assessors and employers/industry
- The effectiveness of certification system
- The financial, material and human resources of COC
- The organizational structure of COC in the Region/Zone

6. What do you suggest as solutions to these problems?
7. How do you explain the start and the current status of COC in the Region/Zone?
8. What do you think are the successes achieved by Tigray COC in implementing assessment and certification program?
9. What additional ideas you like to add regarding the implementation of occupational assessment and certification program?_____

DECLARATION

I, the undersigned, declare that this thesis is my original work, and has not been presented for a degree in any university and that all sources of materials used for the study have been duly acknowledged.

Name: Hayelom Kiros Teka

Signature_____

Date July 18, 2011

This thesis has been submitted for examination with my approval as university advisor.

Name: Dr. Abdulaziz Hussien (PhD)

Signature_____

Date 18/7/2011