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LIST OF ACRONYMS

AA	Addis Ababa
AACC	Addis Ababa City Council
AC	Assessment and Certification
ACBTSE	Anbesa City Bus Transport Service Enterprise
APT	Apprenticeship Training
ASTD	American Society for Training Development
AU	African Union
BPR	Business Process Reengineering
C	Complete
CAF	Canadian Apprenticeship Forum
CalSWEC	California Social Work Education Center
CBT	Competency Based Training
Cedefop	European Centre for the Development of Vocational Training
CISS	Campbell Interest and Skill Survey
CoC	Center of Competence
COTVET	Council for Technical Vocational Education and Training
CUP	Cambridge University Press
EAL	Ethiopian Air Lines
EC	European Community
ECAE	Ethiopian Conformity Assessment Enterprise
ECCSA	Ethiopian Chamber of Commerce and Sectoral Association
ESDP	Educational Sector Development Program
EU	European Union
FDRE	Federal Democratic Republic of Ethiopia
FDREDM	Federal Democratic Republic of Ethiopia Defense Minister
FET/C	Further Education and Training /Colleges
FGD	Focus Group Discussion
GSZIS	Guilford-Sheidman-Zimmerman Interest Survey

GTZ	Deutsche Gesellschaft Für Technische Zusammenarbeit/German Society for Technical Cooperation/
HDI	Human Development Index
HMMBI	Hibret Manufacturing and Machine Building Industry
ILO	International Labor Organization
ISO	International Management System Standard
JVIS	Jackson Vocational Interest Survey
KGIS	Kuder General Interest Survey
M and E	Monitoring and Evaluation
MDG	Millennium Development Goals
MoD	Ministry of Defense
MoE	Ministry of Education
MMEE	Marathon Motors Engineering Enterprise
MVII	Minnesota Vocational Interest Inventory
NC	Not Complete
NCV	National Vocational Certificate
NCVER	National Centre for Vocational Education Research
NETP	New Educational and Training Policy
NGSECE	National General Secondary Education Certificate Examination
NGO	Non-Governmental Organizations
NOS	National Occupational Standards
NQF	National Qualification Framework
OECD	Organization for Economic Co-operation and Development
OII	Occupational Interest Inventory
RMCS	Rhine-Main Chamber of Skilled Crafts
SADLP	South Africa Department of Labor Project
SCCT	Social Cognition Career Theory
SDRTVC	Selam David Röschlis Technical and Vocational College
SDS	Self-Directed Search
SII	Strong Interest Inventory
SVIB	Strong Vocational Interest Blank

TGE	Transitional Government of Ethiopia
TTLM	Teaching Training and Learning Materials
TVET	Technical Vocational Education and Training
TVETC	Technical Vocational Education and Training College
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific, Cultural Organization
UNEVOC	International Project on Technical and Vocational Education of the United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children’s Fund
UNISA	University of South Africa
USA	United States of America
VIA	Vocational Interest Analysis
VPI	Vocational Preference Inventory
ZPD	Zone of Proximal Development

CHAPTER ONE

BACKGROUND TO THE RESEARCH

1.1 Introduction

The current world technological advancement can be explained using the term ‘information and communication technology’. Its wider influence has brought countries nearer. With its application to development, innovations at one corner of the world have been managed to penetrate in the other corner. The move has further brought advancement in the communication, transformation and information technology. However, transformation of technology will not be materialized unless operated by human beings. In line with this, technical and vocational education and training program plays unique role in producing skillful manpower to transfer technology.

In fact, the contribution of Technical Vocational Education and Training College (TVET) is not restricted to the transformation of technology alone. It goes further and can be applied to the realization of MDGs by eradicating extreme poverty and hunger. The eradication of poverty can be attained by enhancing economic development through the production of skill. These efforts in eradicating poverty will be more significant in the developing nations of the world (UNESCO & ILO, 2002).

The need for skilful manpower is also crucial in the Ethiopian context. In the last few years, the country has shown remarkable economic achievements. In this respect, multifaceted development plans are demanding skillful persons to sustain the achievements. The recently introduced CBT at the TVET colleges can satisfy the country’s middle level manpower needs by providing graduates with employable skills.

The international comparison of the HDI has, however, shown that Ethiopia has a less developed human resource. As the 2010 index shows, Ethiopia has fallen to 157th place, although its 2010 HDI rank upgraded from 2005 by three (UNDP, 2010). On the other hand, Ethiopia has set a

vision of becoming among the middle income countries by the year 2025. In order to attain this vision, there is a need to produce 1,127,330 middle level trainees at the end of 2014/15 plan year (MoE, 2010). Hence, efforts should be exerted to use TVET as a tool to develop Ethiopia's skillful manpower for its economy. As part of TVET system, the formal apprenticeship can be considered as a means that can produce the required human resource by balancing the theoretical and practical knowledge.

The very nature of apprenticeship demonstrates that the link between school and workplace is vital for the schools' (TVET) success. This is due to the fact that schools enable trainees to grasp job skills at the workplaces. They even help them to alter their negative attitude towards work. Obviously, work determines the very existence of human beings. Our life will be endangered unless we work. Even our control over nature will be in vain. The achievements in all sectors of human development cannot be realized without work. The life of all human beings, either individually or collectively, is determined by work. Work shapes all aspects of people's life.

The social, psychological, emotional aspect of people's life also heightens when they are engaged in work. The central role of work in human life can be demonstrated by seeing workless situations like unemployment, economic recessions, retirement and even when people are deprived of the advantages or values of work resulting from many physical and psychological factors (Bergh & Theron, 2006).

The same is true for apprenticeship as it acquaints people with the world of work and equips them with the skills required in a given job. It applies observation as a sole instrument to grasp the desired skill from the master. In view of this, the apprentice first observes the task that interests him/her and copies accordingly. During this time, the master coaches him/her and gives feedback in turn. Such regular practices eventually lead the apprentice to put the task into practice in the approved manner and thereby become skillful worker (Simeoni, 2005).

In its modern concept, however, the formal apprenticeship training refers to a structured plan of learning shared between the workplaces (industries, trades, offices, hospitals, etc.) and training centers (schools or Technical and Vocational Educational and Training colleges). It indicates a

model where individuals receive practical training at workplaces and general or theoretical education at training schools, colleges or other related centers that are established to provide trainings (UNESCO & ILO, 2002). Formal apprenticeship training is thus found to be a sole instrument for the implementation of the objectives of TVET programs. It cannot, in the final analysis, be perceived without an outcome through work.

Apprenticeship, delivered in any form, also plays the role of occupational socialization (Coy, 1989). A human being is a social animal. As a matter of fact, the socialization process begins in childhood and continues until death. The same is true in one's career development. In career development, sooner or later, people enter social intercourse. In our case, the apprentice may think about a career that he/she likes to choose, but it cannot be realized unless he observes people and learn the social norm that operates within the people to be imitated. The process continues for a long time and, eventually, the apprentice learns the social values and norms of people working with him.

The application of apprenticeship training can also be perceived across all occupations in industry, trade, commerce, domestic service, agriculture, forestry, health care, social work, applied art, etc (Haefeli, 2000). In general, it is widely used as an exclusive instrument to fill the practical skill gaps of trainees in TVET programs by coordinating trainings with enterprises. The length of apprenticeship training program, in fact, varies depending on the type of profession that the trainees seek to search.

1.2 Statement of the research problem

It is true that acquiring occupational skills depends on the social context of trainees' social environment. This is because the trainees interact with people (masters) when they observe the skills that interest them. The process ensures them to perform according to the skill they acquired.

The preceding view is supported by the constructivists approach since they believe that knowledge is constructed in the course of learning rather than passively adopting it. Thus, apprenticeship trainees can produce knowledge in the place (school or outside) where they are

engaged. However, the knowledge gained may vary from individual to individual due to various reasons (De Munck, Kaplan & Soly, 2007).

Apprenticeship training is not a practice only for the early times. It also satisfies the current labor demand of many of the economic sectors. In whatever form it is offered, it has become an instrument to develop practical skills in different occupations. This is due to the fact that occupational skills can be learned in settings that resemble their final applications. Besides, the occupational skills depend on the context in which they are acquired to be applied (De Munck, Kaplan & Soly, 2007).

It is mandatory for TVET trainees to undergo the process of the apprenticeship training program. They are required to fulfill this condition regularly during their stay in the TVET colleges. Some implementation problems of apprenticeship training, however, can be observed in TVET colleges or enterprises. These may not, in fact, be phenomena observed only in Addis Ababa or in few selected towns of the country. It can also be perceived at a national level across all regions of the country. Unless these problems are solved, the need to acquire skillful apprentices will greatly be jeopardized. Hence, the factors that can impede apprenticeship training implementation should be addressed and solutions should be sought by applying the right research methods.

However, some research findings have shown that the apprenticeship training program is not being implemented fully. For instance, research endeavors exploring the reasons why apprenticeship training programs fail to be implemented in Ethiopia tend to focus on a single reason that aggravates the situation. The national survey of apprenticeship training program implementation problems conducted by the Ministry of Education in 2004 can be mentioned. The objective of this research was to carry out a survey on 10+3 training program in 14 government and 3 non-government TVET Schools with the assumption to improve the implementation of the TVET training program. The findings of the research have shown that the reluctance of TVET colleges to send teachers to participate as committee members in enterprises had hampered the effectiveness of the apprenticeship training program in the TVET schools during the research (MoE, 2004).

Moreover, the first preliminary assessment (conducted in 2008) by the researcher regarding the status of the implementation process of apprenticeship training program in the Addis Ababa Administrative Region (especially in three TVET colleges namely; Entoto, Wingate and Tegebare-edo TVET colleges), for unknown reasons, has shown that the implementation is with problems. These include problems related to the length of the apprenticeship training, lack of systematic evaluation techniques (all apprentices indiscriminately score the same/high grades), budgetary problems, lack of coordination among stakeholders, failure to implement programs according to the guidelines, lack of structures to ensure uniform implementation in all enterprises, and lack of regular plans to ensure that apprenticeship is completed on time and failure to develop an apprenticeship training curriculum.

It is evident that apprenticeship training system is in its infant stage in Ethiopia and has become more popular since the late 1990s. As the area is a newly emerging system, no adequate study has so far been conducted about its implementations. Though there are researches conducted with respect to apprenticeship by Yimam (2008); Gebremedhin (2007); Engida (2007); Daniel (2007) at the national level, they lack detailed depth and breadth in analyzing the real nature of the problem.

A qualitative study has to be employed so as to understand the real causes of problems encountered in the implementation of the apprenticeship training program. It is believed that such a study would reveal the major contributing factors which pose obstacles in the implementation of the TVET apprenticeship program in the Addis Ababa Administrative Region. This is due to the fact that qualitative research method pays due attention to processes and provides detail information on its implementation. Barriers can also be reported from each stakeholder.

1.3 General objectives of the research

In this study, the researcher aims at identifying the causes of apprenticeship training program's challenges in the Addis Ababa Administrative Region.

1.3.1 Specific objectives of the research

Based on the main objective of this study, the specific objectives of this study are the following.

1. To elaborate on the level of motivation experienced by apprentices in the Technical and Vocational Educational and Training Colleges in the Addis Ababa Administrative Region.
2. To investigate the organizational strength of enterprises in relation to the provision of apprenticeship training.
3. To investigate the strategies used by enterprises and Technical and Vocational Educational and Training colleges to address the challenges encountered.
4. To determine the extent of professional qualities of supervisors at the enterprises with regard to the implementation of apprenticeship training.
5. To identify the kinds of skills provided to apprentices in the enterprises.

1.4 The main research question

Unlike the quantitative research questions (as it is concerned with the investigation of the relationship of the variables), the research statements in qualitative methods are put interrogatively in the manner of questioning about the process, issue or happening that is to be explored (Johnson & Christensen, 2004).

This qualitative research, therefore, investigated the implementation problems of the apprenticeship training program. As a result, it paid close attention to the process of apprenticeship training by posing the following questions: How was the implementation going on? What factors affected it? Who were the actors? What influences did the actors exert? How did the actors influence it? Etc. The researcher believes that the answers to such questions could

be found by applying the qualitative method. To this end, the following main research question was set.

- ❖ What are the causes of apprenticeship training program's challenges in the Addis Ababa Administrative Region?

1.4.1 The sub-questions

Based on the above central question, this study intends to find answers to the following specific questions.

1. How motivated the apprentices were to complete their apprenticeship training in the Technical, Vocational, and Training Colleges in the Addis Ababa Administrative Region?
2. How were the enterprises organized in providing apprenticeship training?
3. How did enterprises and Technical and Vocational Educational and Training colleges address the challenges encountered by apprentices?
4. To what extent did professional qualities of supervisors in the enterprises influence the training of apprentices.
5. What kinds of skills were provided to apprentices in the enterprises?

1.5 Significance of the research

This part of the research explains the reasons why the study is conducted and the values of the research findings. Due to this reason, it is expected to identify the people or institutions that may benefit from the research results (Best & Kahn, 2003). Accordingly, this research is thought to be significant in the following arenas.

- a) It provides a rich description of the contemporary apprenticeship training at the TVET colleges and enterprises by documenting and clarifying its implementation problems to all interested institutions and individuals.

- b) It helps all stakeholders within the TVET program mainly; researchers, educators and policy makers to improve the current practices of the apprenticeship training process.
- c) It contributes to promote the knowledge of trainers and practitioners of the present TVET program of Ethiopia.
- d) It can become a baseline for further investigation for other researches that focus on the implementation of apprenticeship training.

Besides, knowledge of the factors of the actual implementation process of apprenticeship training in the Addis Ababa City Government can encourage the region to take appropriate measures to maintain the quality of the apprenticeship training.

1.6 Research Delimitation

This research was delimited to investigating the implementation challenges of the current apprenticeship training at the level of colleges and enterprises in the Addis Ababa Administrative Region. Accordingly, the researcher applied the purposive sampling technique in order to select both TVET colleges and enterprises that were thought to have rich experience in conducting the apprenticeship training program. This sampling technique also enabled to fairly represent all kinds (private and public) of TVET colleges and enterprises in the city of Addis Ababa. The specific geographical location of these colleges could be described as follows.

- ❖ Entoto Technical Vocational Education and Training College is located in the center of Addis Ababa, specifically in Gulelie sub-city, near Meskayazunan Medehanialem Church (see its map in Annexure 12).
- ❖ Selam Technical Vocational Education and Training College is located east of Addis Ababa, specifically in Yeka sub-city, near Hana Mariam Church (see its map in Annexure 13).

The enterprises were selected on the basis of their relation with the colleges in conducting the apprenticeship training program. The names and specific geographical location of these enterprises are cited as follows.

- ❖ MMEE is found in Yeka sub-city near Meegenagna square (see its map in Annexure 14).
- ❖ ACBTSE is situated in Bole sub-city at the ring road highway that is stretched from Meegenagna to Bole, opposite Nyala Motors Company (see its map in Annexure 15).
- ❖ HMMBI is located in Lideta Sub-City, near Police Head Quarter, around Mexico (see its map in Annexure 16).

This research was also delimited to selecting the participants of college leaders, apprenticeship training coordinators and college trainers, supervisors and apprentices. Using the purposive sampling technique, these groups of participants were chosen since all of them were involved in the implementation of the apprenticeship training in the colleges and enterprises. Moreover, the researcher selected these participants due to the fact that these participants were thought to provide rich and detailed information on the problem under study.

1.7 Research Limitation

Research limitations refer to the conditions that pose restrictions on the conclusion and application of a research endeavor (Best & Kahn, 2003). Thus, lack of financial resources has affected this research's activities in taking more colleges and enterprises to investigate the research problem as intended. As a result, it was exclusively limited to the investigation of the problems in one public and two private enterprises. Similarly, only one public and one private TVET colleges were chosen in the study. For this reason, the research had taken the following reservations.

- ❖ It did not attempt to research how trainees chose their occupations/field of studies in their respective TVET colleges.

- ❖ It did not attempt to examine the training success or failure of each trainee during his/her stays in the TVET colleges.
- ❖ It did not attempt to examine the training achievements of trainees at the end of their apprenticeship training program.
- ❖ It did not research the success of trainees' career after the apprenticeship training program.
- ❖ It did not attempt to evaluate the qualities of previous trainings conducted through the apprenticeship training programs in each enterprise.
- ❖ It did not attempt to evaluate the qualities of the training materials applied to the apprenticeship training programs in each enterprise.

1.8 Clarification of concepts

Concepts may have various meanings (for instance, theoretical or operational) depending on the purpose they are used. However, for concepts to be applicable to the intended purpose they should be defined clearly and precisely (Bless, Higson-Smith, & Kagee, 2006). Similarly, an operational definition of concepts may be provided in research to recognize some of the specific events that may represent an abstract concept (Vos, Strydom, Fouche, & Delport, 2011).

At times, more than one operational definition may be provided to a single concept. But, all the definitions are expected to base themselves on the observable characteristics of the objects or phenomena under research. They should also clarify what to do or what to observe in order to indicate the characteristics under research (Bless, Higson-Smith, & Kagee, 2006).

In similar ways, the researcher has tried to provide both conceptual and operational definitions of the following terms. This is done purposely to make the application of concepts clear.

1.8.1 Apprentice

The concept of ‘apprentice’ is defined by Coy (1989: 65) as: “an apprentice is a neophyte beginning and learning an occupation, either with or without a formal program of apprenticeship and the specific label of apprentice.” Similarly, Longman (2007: 24) defined it as: “A young person being trained to do a skilled job, who has signed a contract agreeing to work a fixed number of years for the employer who is training them.” In this research, ‘apprentice’ refers to the trainee who is once enrolled either in private or public TVET colleges, and was assigned at enterprises for apprenticeship training program after an in-campus or a theoretical training.

1.8.2 Formal apprenticeship training

Formal apprenticeship training is a kind of training program that involves a formal agreement of employers, employer associations, labor unions, state and government (Cantor, 1997). It embraces work experiences of extended duration in which an apprentice learns specific occupational skills related to the different trades (Luecking, 2009). In this research, it is supposed to explain the job oriented training offered by enterprises when the apprentices are assigned to them by the TVETC in work based training program.

1.8.3 Informal apprenticeship training

Informal apprenticeship training is used to indicate the informal form of job oriented training offered by masters (skillful people) in all sectors of life (De Munck, Kaplan & Soly, 2007). It refers to the oldest forms of training in which the skills and knowledge associated with the skilled occupation are passed from a skilled worker to a learner (Cantor, 1997). In this research, it refers to the kind of training offered by masters (skillful people) in all sectors of life out of the TVET colleges and enterprises.

1.8.4 Enterprise

It indicates a company or business that makes or sells goods or services in order to make profit (Longman, 2007). It also refers institutions which hold all forms of training jointly with TVET providers (MoE, 2007). In this research, an enterprise refers to apprenticeship training provider at service, production and trade sectors that admit and train (in agreement with the TVETCs) apprentices for a fixed period of time.

1.8.5 Trainee

A trainee can be described as a person trained to do a job (Phillips, 2004). It refers to a person who is being taught the skills and knowledge to do a particular job (Longman, 2007). In this research 'trainee' is tantamount to apprentice.

1.8.6 TVET Colleges

The current TVET colleges include both public and private training institutions that offer Technical Vocational Education Training from Level 1 up to 5 (MoE, 2007). TVET training institutions are institutions that orient students with the acquisition of knowledge, skill and attitude for the world of work (UNESCO and ILO, 2002). In this research, 'TVET Colleges' refer to colleges that are labeled as TVET by the Addis Ababa TVET Agency.

1.8.7 Supervisors

Supervisors are skilled workers in the enterprises who are expected to share the basic skills required by the apprentices (MoE, 2007). A supervisor is a teacher assigned to follow the research work of a graduate student (UNISA, 2012). The term 'supervisor' in this research refers to the master, craftsman or craftswoman at the enterprises who is responsible for the training, monitoring and evaluating of apprentice's performance.

1.9 Organization of the study

This research is organized in the following ways. The first chapter is about the orientation of the research. The background to the research is explained first. Following this, the statement of the research problems is described. Then the main research question and sub-questions that are thought to be answered by the research are provided in order. Finally, the aim, objectives, the significance of the research, the research problem, the delimitation and limitation of the research the clarification of concepts and the organization of the chapters are presented.

The second chapter, the literature review, begins with the brief review of the history of apprenticeship training at the global and Ethiopian context. It attempts to discuss trends in the provision of TVET and apprenticeship training, the benefits of skill based trainings, the benefits

of apprenticeship training, the experience of countries in the implementation of apprenticeship training, the role of motivation in training, the measurement of training, epistemological issues in apprenticeship training, and implementation problems of the apprenticeship training.

The third chapter is the theoretical framework for the apprenticeship training. It discusses the theories that are thought to be related with the research problem under investigation. Hence, the main theories raised under this chapter are Bandura's (1977) theory of observation (imitation), Vygotsky's theory of ZPD, Lave and Wenger's (1991) contextual or the situated learning, Holland's career theory and the constructivist view of learning to describe the apprenticeship training process.

The fourth chapter is about the research design and the methodology part. In this part, the rationales for choosing the qualitative research methodology, the sources of the data and the reason for selecting the people to be researched and the institutions are discussed in detail. Furthermore, the description of the data collection instruments and their application in the research are explained. The ethical issues that the researcher is obliged to be abided are also discussed.

The fifth chapter is about the description and interpretation of the data. The data collected by the use of the various instruments discussed in chapter four are described in the light of the research questions set. Eventually, the findings are interpreted and discussed. The sixth chapter attempts to summarize all the steps of the research process and tries to elaborate the conclusions reached and the recommendations forwarded.

1.10 Description of the sample organizations

A/ TVET Agency

One cannot take the current geographical location of the Addis Ababa TVET Agency for granted. This was due to the fact that during the time of the research it was working in rented-offices. Thus, it was believed that it would move to new premises. But, whatever the case may be, the Agency came into operation on February 12, 2009. The Act (Proclamation No. 11/2009-Amended) for its establishment was put in force by the Council of Addis Ababa Regional

Government (AACC, 2009). Among the responsibilities delegated to the Agency, it has the right to direct and coordinate technical and vocational education and training colleges '(private or public)' of the City Administration (Article 9(14)).

Besides, it has been coordinating and giving the necessary support for practical on-job trainings that prepared for technical and vocational education and trainings in collaboration with manufacturing and service giving institutions (Article 9(9)). In line with this, one could understand that the Agency was delegated with the responsibility of facilitating the implementation of practical on-job training (apprenticeship training program) in enterprises and TVET providing institutions. For this reason, it was working closely with TVET Colleges, and manufacturing and service rendering institutions.

The Agency was delegated, mainly, with the responsibilities of implementing TVET in the city. The law specified its duties and responsibilities in detail. It was expected to exert efforts, as delegated by the Agency, to ensure that the technical and vocational education and training programs in the city were undertaken in conformity with the development objectives and human resource demands of the administration. To this end, it was observed facilitating a series of tailored trainings to micro enterprises in connection with public colleges.

During the research, it was found impossible to obtain the approved organizational structure of the Agency. It was, in fact, assumed to be organized in accordance with the principles of BPR. Evidently, concepts like process owner, sub-process owner, performer and others were more familiar in BPR than any other form of structuring in an organization. By the time the research began, the Agency had flat organizational structure. It had a total of 88 government employees. Out of which 42-had first degree and the other 10 had second degree. The rest had diploma, certificate or other lower educational credentials.

The Agency was led by a General Director and a Vice Director. The Vice Director was responsible for an Outcome Based Training Core Process. The Outcome Based Training Core Process, in turn, had the responsibility of coordinating and providing support to the apprenticeship training.

B/ Entoto TVET College

Entoto TVET is one of the known public TVET Colleges found in Addis Ababa. It is situated near the Addis Ababa University around Sidest kilo. It is under Gulelie Sub-city Administration-near ‘Meskayazunan Medehanialem’ Church (see its map in annexure 12). It was labeled as a better training performer during the 2011 training year by the Federal TVET Agency.

The present Entoto TVET College was founded in the country prior to the Italian invasion in 1924. For this reason, the college has passed long history of educating and training students for more than seventy five years. Since its foundation up to 1974, it was known by the name of the then king ‘Haileselesie’ of Ethiopia -‘Teferi Mekonen’. In 1974, when the military government came into power, its name was changed to Entoto Comprehensive Secondary School. Again, in 2000, it changed its name to Entoto TVET College. Since then it has been named as Entoto TVET College. However, it has been offering both academic and vocational education since 1989 (Entoto, 1989).

It was offering both hard and soft skill (Business, Accounting, etc) training programs up to 2010. However, a new chapter was opened in the college in 2011, due to the decision to offer training only in hard skills (training areas that require more practices). During the time of the research, it was offering training on the following levels of occupations; Hotel management-Level 1-4, Information Technology-Level 1-4, Metal and Wood work -Level 1-4, Automotive Technology-Level 1-4,Drafting and Survey-Level 1-4, Construction Technology-Level 1-4, Textile and Garment-Level 1-4, Electrical and Electronics-Level 1-4 and Aesthetics-Level 1-4.

All the above lists of occupations were derived from the NOS prepared by the Ministry of Education in collaboration with stakeholders. In fact, the involvement of the stakeholders during the development of this document was assumed to be high. Based on the document, every training institution was expected to organize and provide the actual training process using its own resources.

In line with the above training programs designed in the college, the college was implementing apprenticeship training in partnership with the enterprises. A guideline was prepared to facilitate the implementation of this program. Accordingly, the apprenticeship training was supposed to pass through series of steps: planning of the apprenticeship training with the enterprises, signing of training agreement, establishing apprenticeship training sites, assigning training coordinators, inspecting training sites and monitoring and evaluating the program.

In relation to this, no matter at what level s/he was registered, it was mandatory to every trainee to pass through this program. Along with this, the college developed various formats to facilitate the implementation of apprenticeship at the enterprises.

C/ Selam TVET College

Selam is another TVET College selected for this research. It is a privately owned college situated East of Addis Ababa- under Yeka sub-city administration, near Hana Mariam Church (see its map in annexure 13). It was founded in 1986 within an area of 30, 000 meter square. The founders of this college were the Röschlis'- husband and wife of Swiss humanitarians. Once they were living in Ethiopia establishing orphan village exactly at the center of the current college campus. However, during the advent of the communist regime in Ethiopia, they went back to Switzerland. One of the orphans, Tsehay, who went with them, came back in 1986. After she had come back to Ethiopia, she founded Selam Children's Village. Later on, the children's village was promoted to Vocational Center in 2000 (SDRTVC, 2011). Since then, the college has started training skills.

Later, since 2000 onwards, the college was named as 'Selam David Röschlis' Technical and Vocational College' (SDRTVC, 2005). It had built workshops in the campus including various machines, cold forming workshops, woodwork shop, conventional foundry, metal forge, heat treatment, sand blasting and powder coating facilities. By the use of this facility, it was able to generate its own income.

The college was one of the known private TVET Colleges in the city. In conjunction with this, it won ECAE award (see in annexure 11) due to its high quality training performance on the

Ethiopian TVET system. While this research was going on, the college was offering training on the following occupations and levels; General Metal Fabrication and Assembly-Level 1-4, Machining-Level 1-4, Auto Electricity -Level 1-4, Auto Engine Service-Level 1-4, Building Electrical Installation-Level 1-4, Building Metal Works-Level 1-4, Industrial Electrical Machine Drive-Level 1-3 and Furniture Making-Level 1-3.

In addition to the above occupations, the college was offering short-term training on welding. It was also providing tailored training on food preparation to companies and individuals based on their training needs (SDRTVC, 2011).

The college had an ‘internal’ apprenticeship training program, on the college campus for all trainees. However, the ‘external’ apprenticeship training was applicable to trainees (for level two and above) who were assigned to the enterprises for some times (even more than a month depending on the kind of occupation).

D/ HMMBI

Earlier, HMMBI was named as Hibret Machine Tools Engineering Complex (FDREDM, 2008). It was run by the Ethiopian Ministry of Defense. It had a vision of building the country’s Defense Industry by making it competent in its product and service with a reasonable price and quality. However, it made a shift in its focus by producing machine spare parts to all customers in need. As of 2010 onwards, it has undergone through the process of transforming itself to a better public business enterprise. As a result, it engaged itself in spare part production. Consequently, its name was changed to Hibret Manufacturing & Machine Building Industry. During the research, it was providing apprenticeship training on machining to TVET trainees.

HMMBI was found in Lideta Sub-City Administration, near Police Head Quarter, around Mexico. Due to the stringent disciplinary conditions observed in the enterprise, the researcher could not capture photographs as needed.

E/ MMEE

MMEE was a new privately owned enterprise established in 2010. It was an exclusive distributor of Hyundai vehicles from South Korea. It had very limited experience in the field. It was found in Yeka Sub-city Administration around Megenagna Square. It was located in, the same vicinity of Megenagna square, a six-floor building with the name “Marathon Motor Engineering Enterprise”. It was a profit making enterprise run by private investors. The highest share owner of the enterprise was thought to be the famous Ethiopian Athlete- Haile Gebresilasie.

The enterprise’s main function was the provision of services, i.e.; commercial vehicles and passengers’ vehicles service. In line with this, it provided apprenticeship training on Engine Mechanics and Auto Electric service. However, it was admitting limited number of apprentices from Entoto and Selam TVET colleges. Accordingly, in the passengers’ vehicles it took five to six apprentices- in Engine Mechanics and in Auto Electric. However, in the commercial division, it used to admit only three apprentices.

F/ ACBTSE

ACBTSE was one of the known transport (city bus service) providing public enterprises in the Addis Ababa city. It passed through long history. It started working in the city after the Italian soldiers invading the country were chased away in 1942 (ACBTSE, 2009). During the time of the research, it was estimated to cover 35% of the transport needs of the city dwellers. The enterprise was situated in Bole Sub-city Administration around Megenagna Square, specifically near Nyala Motors Company.

ACBTSE was supposed to have a wide organizational structure embracing more than 3000 employees. Its garage service centers located in three different parts (Megenagna, Lideta and Saries) of the city were providing apprenticeship training opportunities for TVET college trainees on machine and auto mechanics

1.11 Synthesis

Education is an instrument that cultivates the mind and can help individuals acquire attitude changing knowledge thereby ensuring a better life. The same is true of the TVET system. TVET provides the main link between school, education, and work by the continuous application of knowledge and skills gained in training. As a result, TVET has become crucial both at national and global levels. The need for apprenticeship application is becoming clearer in Ethiopia due to the country's growing demand for skilled manpower.

Ethiopia has set a goal of becoming a middle income country by the year 2025 despite the current low levels of manpower development. There is a need to produce 1,127,330 middle level trainees at the end of 2014/15 plan year (MoE, 2010). However, the country's latest economic achievements require skilled professionals to be sustained. The recently introduced CBT at the TVET colleges is thought to satisfy this middle-level manpower need by providing practically demonstrable skills. Formal apprenticeship which is part of the TVET system is considered the most appropriate tool to produce the required manpower because it enables trainees to acquire practical on-site job skills. At the same time, it helps to alter the negative attitudes of trainees toward work and guides them toward higher skills and productivity. However, research findings have shown that Ethiopia's apprenticeship training program is not being implemented correctly.

The Ministry of Education conducted a national survey of apprenticeship training program implementations in 2004. The objective was to carry out a survey of 10+3 training programs in 14 government and 3 non-government TVET Schools. The findings proved that the reluctance of TVET colleges to allow teacher participation in committee memberships has hampered the effectiveness of the apprenticeship training programs in TVET schools (MoE, 2004). Additionally, a 2008 study in Entoto, Wingate, and Tegebare-ede TVET colleges has shown that implementation practices need improvement in lengths of the apprenticeship training period, measurements techniques (all apprentices scored the same grades, or all had high grades), budget, coordination among stakeholders, adherence to guidelines, uniformity of implementation, timely completion, and development of an apprenticeship training curriculum.

This study employs qualitative research methods to explore the causes of implementation problems in apprenticeship training at the TVET colleges and Enterprises in the Addis Ababa Administrative Region. It also investigates the causes of program failures. Furthermore, it attempts to assess professional qualities of supervisors and lists the skills acquired by apprentices in various Enterprises.

The researcher believes that the results of the study will a) encourage the Addis Ababa Administrative Regional government to take appropriate measures and maintain the quality of apprenticeship training b) help focus the attention of policy makers on improving the apprenticeship training process, c) highlight conditions hampering implementation of apprenticeship training in specific social contexts, and d) enable interested professionals, researchers, educational institutions, teachers and others to sharpen their focus on apprenticeship training. *The subsequent chapter deals with the literature review.*

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The literature review in both qualitative and quantitative research plays different roles. In quantitative research, it is done prior to the research activity to gain a general understanding of the existing knowledge of the topic under research. Besides, it helps to equate the results with the research results conducted by other researchers. Consequently, it becomes more detailed and longer (Creswell & Plano Clark, 2007; Johnson & Christensen, 2004).

The views of the researchers in the qualitative research (about the literature review), on the contrary, have resulted from the development of two schools of thought. One school of thought believes that the researcher should conduct a full coverage of the literature review (as in the case of ethnography) before collecting the data. On the other hand, the other school of thought thinks that it is not necessary to review the literature first due to the fact that new research questions, hypotheses and theory may emerge while collecting the data. The second school of thought goes on arguing that it is after we have collected the data that we should review the literature. However, this approach is not recommended by researchers in the field. This is due to the fact that the approach may not give chance to raise basic issue and make the necessary adjustment and take instant measures related to the research problem under investigation (Johnson & Christensen 2004).

It is, therefore, advisable to conduct the literature review in the qualitative research before the actual data collection takes place. Due to this reason; it is believed to stimulate theoretical foundation of concepts and relationships that may be brought to the situation under research. It also helps to pose questions in relation to the behavior that one wants to observe. Moreover, it provides information about the situation or the population that the researcher needs to research (Gelesne, 1999; Johnson & Christensen, 2004).

In addition, the literature review in the qualitative research is used to provide evidence for the purpose of the research and the research problems. It is, thus, brief and may not limit the type of information the research seeks from the participants. Due to this reason, it may even consider individual cases (Creswell & Plano Clark, 2007).

Based on the above scientific views of literature review, its inclusion in this qualitative research was thought to serve the following purposes.

- ❖ It provided evidence for the research problem as it reviewed the literature on the implementation of apprenticeship training of the countries that have undergone rich experiences.
- ❖ It helped to review the research questions by reviewing and modifying some of the original research questions.
- ❖ It also guided the researcher in learning more from the participants while collecting data and observing the situation in the places where the research took place. Thus, both kinds of knowledge identified as theoretical and research knowledge (Wallace & Wary, 2011), gained from the various sources, were reviewed in this research.

2.2 History in context

The history of apprenticeship training at the global level was linked with the history of the following different research fields (De Munck, Kaplan & Soly, 2007). In view of this, we can start with the history of education. As it is well known, the history of education was developed through man's struggle against nature. This process encompasses both the formal and informal type of education. In both kinds of education, the child learns from his parents, teachers, peers, etc. starting from its birth. Hence, apprenticeship has a special place in the history of education as it enables the child to learn or to be trained by observing others.

The history of apprenticeship is also inseparable from the history of guilds. Guilds were associations of persons that had similar interests in a craft. The term was particularly applied to associations that flourished in Europe and England in the middle ages. It was used to describe

the term as merchant guild or guild merchant, and the craft guild. The main reason for the establishment of these kinds of associations (guilds) was to protect the rights of crafts. At that time the master craftsman was able to employ the young people in return for providing training for the apprentice for a long time. As a result, most apprentices were obliged to stay and aspire to grasp the skills of the master craftsman.

The other history related to apprenticeship is migration. In the history of migration, early humans first migrated out of Africa to Asia probably between 2 million and 1.7 million years ago. They entered Europe somewhat later, generally, within the past 1 million years. This kind of social mobility has enabled human beings to imitate and transfer the various kinds of achievements in all sectors of life. This was facilitated both by formal and informal education. Again we can argue that apprenticeship has played great role during this time by being used as tool for skill transfer (De Munck, Kaplan & Soly, 2007).

The other part of history that shares with the history of apprenticeship training is related to human relations based on biology or marriage. In every society, the connections between blood and marriage bring legal, political, and economic consequences. These consequences have an effect on the strength of the social bondage between the partners. This in turn creates opportunity for the partners to learn each other, either formally or informally. This process never ceases till the life of human beings on this planet continues (De Munck, Kaplan & Soly, 2007). In conclusion, we can say that the history of apprenticeship has close connection with the history of the various facets of the lives of mankind.

In the Ethiopian context, no written documents are found that could testify the beginning of the formal apprenticeship training program. But, we can infer that its popularity might have come into being with the introduction of TVET in the country. The history of TVET, on the other hand, is inseparable from the history of modern education in Ethiopia. This is because some of the literature on the issue narrates its history in relation to the development of modern education in the country (Tekeste, 1990; Girma, Meharie & Nigatu, 1994). Hence, it would be better to see the brief overview of modern general education in Ethiopia.

Modern education began in Ethiopia at the beginning of the twentieth century. This historical epoch of the country is noted by explaining the most significant historical records. The first and the second government schools, Menelik Second and Teferi Mekonen schools were opened in Addis Ababa in 1908 and 1925 respectively. Before the Italian invasion, there were a total of 14 schools which were privately financed. However, during the Italian invasion (1941), schools were not expanded both qualitatively and quantitatively in the country. Instead, the Italian invasion seriously disrupted the country's educational system by turning most of the schools to military barracks. In addition, the invaders had intended to eliminate the educated Ethiopians (Tekeste, 1990).

During the invasion, some TVET schools (like the Addis Ababa Building Trade School that was established in 1940), were established. The main aim for the establishment of these schools was political. They were established mainly to satisfy the Italian interest (Girma, Meharie & Nigatu. 1994).

Immediately after the Italian expulsion (1941), the Ethiopian government was engaged in the reconstruction of the nation. However, it faced serious shortage of skilled manpower. This affected the construction of the country. To fill that gap, the government established TVET institutions like the Addis Ababa Technical School in 1942, Addis Ababa Commercial School in 1943, Ambo Agricultural School in 1946, Jimma Agricultural School in 1944, W/o Sehin(in Dessie) Comprehensive Secondary School in 1963 and Bahir Dar Polytechnic School in 1964 consecutively. During the inception, all these institutions (with the exception of Ambo and Jimma Agricultural schools since they were under the Ministry of Agriculture) were under the Ministry of Education. They were also offering training for industry workers, office workers and technicians that took one to three years depending on the kind of training program. The trainees were recruited after they completed grade 8 and 12 education (Young & Ross, 1965).

During the military government of Ethiopia (1974-1991), vocational education was offered in various forms: vocational school, comprehensive secondary school and polytechnic institutions. Under polytechnic education there were higher general and extended technical vocational programs. The general polytechnic education included grade 7 and 8 education whereas the

higher general polytechnic education was offered at grade nine and ten (Girma, Meharie & Nigatu, 1994). In similar ways, the vocational schools were exclusively offering courses in vocational streams, and the comprehensive secondary schools were handling both academic and vocational fields.

Before 1994 (after the new educational policy came into effect), a system of apprenticeship training with a close cooperation of enterprises was not practiced widely in the country. However, there was a kind of practical training program arranged with service providing institutions, mostly at the end of graduation. It was known by some people as ‘free service’. This program was arranged for graduates or students of TVET schools and universities. The length of time, in fact, differs from occupation to occupation, as some take short time and others relatively long.

On the other hand, a new TVET history has been opened in the country since 1994 onwards when the NETP has become effective (TGE, 1994). Trainees were used to be registered in the technical and vocational training programs just after the end of grade 10 general education system. This program was assumed to prepare and produce middle level skilled manpower in the country. Its quality is, in fact, regulated by the introduction of the system of OS and by the application of AC tools conducted at the end the TVET training. The formal assessment took place at CoC in the various regional states of the country.

Based on the 1994 policy, many private institutions in the country started training in 10+1, 10+2 and 10+3 levels following the policy direction. A guideline for the implementation of apprenticeship at enterprises was prepared by the Ministry of Education in 2002. Two years later, the TVET Proclamation (FDRE, 2004) was also enacted to be implemented throughout the country.

As it is evident from the proclamation, apprenticeship training has got a special attention. In the proclamation, part three was dedicated to apprenticeship training program and its implementation in both public and private institutions. It also defines the duties and responsibilities of enterprises and training providing institutes that should participate. Moreover, it has clearly articulated the

appropriate procedures for the implementation of the program at the enterprises. Despite this fact, no data were available that could testify the implementation of the program according to the directives set.

The new training system, in TVET (known as 10+1, 10+2, 10+3) has lasted until 2007 after which it was replaced by the kind of training program that based itself on leveling as L1, L2, L3, L4 and L5. Accordingly, there were a total of 248 training providing institutions offering training on various training levels in Addis Ababa City Administration in 2010/11. These institutions and Technical and Vocational Educational and Training colleges were providing training in 122 middle level occupations (exclusively in hard skills) (ECCSA, 2010/11).

In line with TVET training, the duty of controlling and supervising of activities of the TVET institutions was left to Regional Education Bureaus. To enhance the implementation of TVET program, a strategy was prepared in 2001/2002 by the Ministry of Education. A twenty-year education sector indicative plan was also prepared by MoE and was translated into series of national ESDPs (MoE, 2005).

As part of this long term plan, the fourth ESDP (2011-2015) was (2011) undergoing during the time of the research. The issue of TVET and apprenticeship (at times called cooperative training) were addressed by the ministry as important tools to fulfill the supply of skilled manpower for the various development sectors of the country. The fourth ESDP was developed based on the National Qualification Framework (NQF) for TVET in the relevant areas, usually up to Level 5. Under this program, it was envisaged that each TVET college would cover all costs related with the program in reaching the required skills by the trainees.

2.3 Trends in the provision of TVET program

Historically, the evolution of technical and vocational education followed two different structural traditions i.e., the apprenticeship and the vocational school patterns. Accordingly, apprenticeship, with its own unique features, was found in the countries which had gone through the industrialization process comparatively earlier than the others which had grown out of the crafts during the medieval period (De Munck, Kaplan & Soly, 2007).

The vocational school pattern, on the other hand, is a recent origin and found in specialized training centers established for industrial work or commercial activities starting from many hundred years back. Some of the earlier technical and vocational schools were set up to break the monopoly of apprenticeship training systems over recruitment into the trades. Thus, a full-time vocational and technical education began to develop in the first half of the 19th century when a wide range of institutes of technology, mechanical institutes and technical academies and commercial schools were founded (UNESCO, 1973).

As part of the vocational school pattern, the tradition of apprenticeship is not able to meet its objectives in some European countries (Cedefo, 2009b). There may be, in fact, country specific features of TVET delivery systems; for instance, in the USA, the practices include school-based learning, work-based learning, connecting activities (connecting school and work), and programs and services for trainees (programs for special needs trainees) at risk (Rusch & Chadsey, 1998).

However, in its current development, the vocational and technical education generally follows four main distinct provisions of TVET system by the schools and the enterprises. These trends are discussed as follows (Masri, 1994; UNESCO, 1993; Rusch & Chadsey, 1998; Cedefo, 2009a).

2.3.1 The school system

The supporters of this system believe that the school should be the main organizer of vocational preparation which is thus considered as the main part of the educational structure. Vocational preparation is implemented usually within the school system. Consequently, the trainee is considered as a trainee within the education system rather than a worker and wage earner outside the campus. The trainee is expected to undergo through the training system established within the school he/she is enrolled.

The proponents of this system believe that the provision of TVET knowledge can succeed in its own without the assistance or cooperation of the enterprises. Accordingly, the school based

training system was used to be organized solely on either as a separate system or an integrated system or a comprehensive system.

However, it may seem difficult to take this fact for granted as it would be a serious challenge for the school to equip its trainees with all the necessary theoretical and practical knowledge. It may lack relevance, specificity, link with the world of work, etc. The nature of occupations may also require schools to furnish all the necessary facilities that may result in the production of the right worker. Besides, the trainees should get the opportunity to observe how master craftsmen are doing their work at the actual workplaces. In fact, this cannot be realized without establishing any attachment program system with the enterprises (Rusch & Chadsey, 1998).

2.3.2 The enterprise system

As opposed to the school system, the enterprise system is taken as the main controller of vocational preparation. The activities in the enterprise system include planning, standard setting and content specification. The system is, thus, designed to meet these kinds of objectives. Consequently, vocational education has become part of the enterprise activities and employer responsibilities.

The enterprise system is currently adopted by European countries such as; England, Germany, Austria, and Switzerland. In these countries, some industry-based vocational preparation systems that exist, usually in the form of apprenticeship, are quite advanced. They comprise defined standards, performance assessment, and well designed content of practical skills and related technical knowledge for the apprentices. However, the success of this program depends on the availability of a reasonably developed industrial sector, which in turn requires a similarly developed socioeconomic infrastructure. It will, therefore, be very difficult to avail this kind of training institutions in all countries of the world. Hence, its full implementation in all countries may not be realized soon (Cedefo, 2009a).

2.3.3 The dual system

In the dual system, two separate systems of vocational preparation and the basic occupational levels should exist side by side. These are the school and the enterprise based systems. The later

usually exists in various forms of formal apprenticeship. The existence of this kind of system is attributed to the fact that industrial development in some countries is new and partial.

The introduction of the dual system has been facilitated by the quick expansion of the needs of the new industrial developments and the inability of the educational system to respond effectively. The new dual system remained limited in size and is restricted in geographical coverage (mainly industrial areas), and thus could not replace the school-based system completely. At times, the two systems may exist and develop without effective coordination. This is due to the fact that misunderstanding in some issues like policy-making and planning, as well as standard settings and content specification may be observed (Masri, 1994).

2.3.4 The integrated system

The integrated system provides equal opportunities for both the school and the enterprise without emphasizing on one aspect alone. The system is based on the assumption that a general framework for vocational education can be designed to encompass both the school and the enterprise. The model may be popular in every part of the world. For this reason, it can also be applied to developing countries (Masri, 1994).

It is true that a purely school based system produces graduates who are equipped totally with theoretical knowledge. On the other hand, a purely enterprise based vocational preparation system is also impossible. This is due to the fact that both the economy and the enterprises in all countries cannot shoulder this kind of program. Therefore, they are not in a position to produce trainers with the necessary skills of the job.

In line with the above trends of TVET provision, different models of apprenticeship training systems are also proposed. Guile and Griffiths (as cited in Virtanen, 2008) have analyzed the forms of organizing apprenticeship or workplace training in the European context. Accordingly, they identified five models of work experience, which are briefly described below.

- **The traditional apprenticeship model:** In this kind of model, trainees can be sent into the workplace and they are expected to adjust to the requirements of the workplace. The model

assumes that learning takes place immediately and there is no need for any special guidance or help. The workplace experience is managed through traditional supervision. As there is a minimal cooperation between vocational institutes and the workplace, the division between theory and practice can be seen clearly.

- **The experiential apprenticeship model:** In this model, the work experience has an important role in the learning process. The social development of trainees is emphasized. It is necessary to develop pedagogical practices that support this. Consequently, cooperation between vocational institutes and the workplace is essential, and there is a clear division between theory and practice.
- **The generic apprenticeship model:** According to this model, work experience is seen as an opportunity for developing skills needed in the working life. Trainees collect materials to show their development in acquiring key skills. They also take part in assessing their skills. The teacher's role is to facilitate this process. Thus, the relation between theory and practice remains unclear.
- **The work process apprenticeship model:** In this model, trainees should develop a general understanding of the work process. The intention is that trainees learn skills that can help them work in different work environments. The model requires integration of theory and practice, and hence collaboration between vocational institutes and the workplace is vital.
- **The connective apprenticeship model:** It is presented as an ideal way to organize workplace learning for trainees. The core of this model is the connection between formal and informal learning, and between conceptual development and developing capacity to work in different contexts. The idea is to connect learning in a way that requires integration of conceptual learning and work experience. This requires close cooperation between vocational schools and workplaces; and the central role of the education and training provider is to develop partnerships with workplaces to create conducive environments for learning (Virtanen, 2008).

Besides the above models, the other most common model known in most industrial and other countries is the cooperative apprenticeship training that is run jointly with employers, labor unions, TVET institutions and the government. It involves various stakeholders, and bases itself on well-defined apprenticeship laws. Accordingly, the employers in big industries invest money and avail their facility for the training of apprentices. The labor unions, in turn, have an interest in controlling the training in the degree of specificity of the training, in the number of trainees and in the amount of wage to be paid to the apprentices. The law enforces TVET institutions to provide class room training based on the job demand. The government, in its part, identifies recruits and screens candidates and registers them for apprenticeship training. The model defines the legal rights of each actor during the implementation of apprenticeship training and ensures its sustainability (Cantor, 1997).

2.3.5 The experience of implementing apprenticeship training.

As discussed under 2.2, the history of apprenticeship training at the global level has undergone consecutive historical courses. In line with this, we observe disparities in the experiences of implementing apprenticeship training program. The variations are very significant. Notwithstanding the challenges countries may face, we see some countries accumulating rich experiences and others not. Indeed, some of these experiences may be imitated.

However, it will be difficult to discuss the apprenticeship experiences of all countries of the world. A sample of countries from Europe, North America, Africa and Australia may suffice to cite for benchmarking. Depending on the economic, social and geographical differences of these countries, it appears important to mention the lessons that can be drawn. In conformity with this, the rich experiences of these countries may serve a lot when designing future apprenticeship training.

2.3.5.1 The South African Experience

A new era was opened in South Africa when a democratic election took place in the country for the first time in 1994. This significant event opened a new chapter in the history of the country. Two years later, a new constitution was prepared and amended in 1996. Since 1996, the government of South Africa has committed itself to overhaul and reform the educational system

of the country. Consequently, it passed statutory laws to lay foundation in the educational system. The subsequent educational policies, strategies and other directives were also prepared and implemented (Mad & Mothata, 2000).

As part of the statutory laws, it may be enough to mention the most popular documents relevant to the development of technical vocational educational and training (technikon) in the country. The development of TVET based itself on Further Education and Training/Colleges/ FET/C Act 98 of 1998. The Act permits for the establishment of both public and private FET institutions throughout the country. The law defines;

- Entry requirements: the minimum age and educational qualifications for commencing apprenticeship. The age requirement is 16 years, but section 17 allows 15 to be an exception age.
- Period of apprenticeship: it specifies 3 to 5 years of apprenticeship training program depending on the designated trade.
- Formal qualifications: it defines the kind of National Certificate to be awarded.
- Workplace experience: it limits the work experience to be possessed as prescribed by the respective Minister and the period of apprenticeship.
- External assessment: it confirms successful completion of a qualifying trade test (SADLP, 2008).

In addition, the Law gives ground for the implementation of FET at the national, provincial and local level. At the national level, there is ministry of education responsible for the provision and evaluation of educational policies, planning, coordination, development, and the management of higher education and human resource. On the other hand, each of the nine South African provinces has its own executive council responsible for the education in the province. Likewise, the governance of the local area is responsible for the implementation of the educational activities in each school.

Education in South Africa is compulsory until grade 9. However, trainees who completed grade 9 may have the chance to acquire [under the NQF] their General Education and Training

Certificate and to continue employment or technical training at FET institutions (Akoojee, Gewer & McGrath, 2005).

It should be noticed that trainees register for apprenticeship just at the end of their secondary education. This was facilitated by the Apprenticeship Act of 1992. The Act paved the ground for the technical college sector to develop rapidly and to provide theoretical training for those already engaged in practical or on-the-job learning apprenticeships (Akoojee, Gewer & McGrath, 2005).

In all the nine provinces of South Africa, FET colleges are considered as important institutions for technical skills development at the intermediate level. Notwithstanding the right of each province to administer FET, they take the central role to the delivery of priority skills needed in South Africa. Based on the Vocational curriculum being implemented in FET colleges, trainees are expected to sit for the NCV qualification at the end (SADLP, 2008).

Recently, the South African Department of Labor proposed four routes for the training of prospective artisans. The new proposal was supposed to produce manpower for both informal and formal economy. Besides, it has the power to combat employment problems in South Africa. It can, thus, be considered as an African model to be imitated. Since the output from the formal FET colleges alone cannot ensure the number of middle level personnel, it requires policy makers and others to design this kind of system. However, there is a problem regarding the learning outcomes of the current FET colleges in South Africa since they are not aligned with industry needs. Besides, the quality of FET graduates is not in accordance with the required level in the workplaces (SADLP, 2008).

Unless the training at the enterprises meets the required quality, the implementation of apprenticeship training will be at stake. It will also be hard to produce the right kind of person. This may be taken as a challenge for the TVET system of the country in achieving the apprenticeship objectives.

2.3.5.2 The German Experience

In Germany, children are enrolled in compulsory full-time schooling at the age of six. Following four years of primary school for all, educational paths are divided into the secondary general schools, intermediate schools, grammar schools, and in almost all the Landers /a federal union of 16 states/ comprehensive schools. This schooling takes 9 years. Upon completion, trainees who do not attend any full-time-school are asked to attend part-time (vocational) school for 3 years. However, in practice, trainees attend school from the ages of 6 to 18.

The different educational paths come together again. As a result, trainees who belong to this system include those who completed education in special, secondary general (Hauptschule), intermediate (Realschule), comprehensive, vocational and grammar schools (Gymnasium). The dual system is, thus, the one that absorbs the largest number of trainees at upper secondary level, with approximately 53 % of an age cohort training for a recognized training occupation in Germany. Compulsory education exists for persons (aged 6-18) and for trainees in the dual system (even if they are over 18) (Hippach-Schneider, Krause & Woll, 2007).

The dual system is described as dual since the training is conducted in two places of learning- the enterprises and the training institutions (Cedefop, 2007). Trainees can enter the dual system for two, three or four years depending on the occupation. This can be realized when they have completed full-time compulsory schooling (Misko, 2006). This kind of TVET training system in Germany is, in general, established on a legal ground. To this end, training in enterprises is regulated by a series of federal Laws and Regulations (Hippach-Schneider, Krause & Woll, 2007). The most significant conditions are the free choice and practice of an occupation, as depicted in the Constitution (Grundgesetz: Article 12 (1)) and Federal Government legislation for out-of-school vocational training (Article 72 (1), (2) and Article 74 (1)).

The German dual system is believed to equip trainees with the required skills of the occupations. This is due to the fact that the training program is systematically conducted in two settings: in the learning companies and in the TVET schools. This kind of training program lasts for three years. However, there are laws that permit a reduction in the training period. This can be done by establishing agreement with enterprises. Accordingly, the agreement obliges both parties to meet

the main objectives of the training in the dual system by acquainting the trainees with the skills of the occupation (Hippach-Schneider, Krause & Woll, 2007).

The current competence based vocational training in Germany requires trainees to exercise an occupation in order to become skilled worker. Thus, successful completion of the apprenticeship training program enables the trainee to become qualified skilled worker. On the other hand, full-time TVET education commitment must be ensured by the trainee using written format prior to the beginning of the training, and this right is provided to all German citizens.

Apprenticeship training in Germany takes place on the basis of the training contract signed between a training enterprise and the young people. A contract established in this way ensures the trainee to stay in the enterprise for three or four days, and in the vocational school up to two days a week. The agreement imposes the enterprises to shoulder the cost of the in-company training and remuneration. The amount of the remuneration, however, increases with every year of training, and reaches about one third of the starting pay for a trained skilled worker. The professional competences in the occupation to be acquired in the enterprises are specified in the agreement and oblige the enterprises to incorporate them in their training plan. Enterprises are expected to provide training places in both the industry and the public service. Moreover, enterprises enter into a contract with trainees to provide them with the professional competences in the occupation (Hippach-Schneider, Krause & Woll, 2007).

The requirements of the dual training system guarantee a uniform national standard which ultimately ensures to meet the requirements of the occupation. Due to this reason, the training that takes place in training enterprises is implemented by people who have skill in that profession. The suitability of training at the enterprises is monitored by the relevant autonomous industrial bodies (Chambers). The training enterprises are thus advised to prepare detail training plans for trainees. This plan should, in fact, correspond according to its practicality and time structure.

It may be observed that most of the time small and medium-sized enterprises are often unable to provide all the learning content. Sometimes they lack suitable training personnel or may not

cover all the training content themselves. As a result, there are various possible ways of overcoming these problems. We can cite the following (Hippach-Schneider, Krause & Woll, 2007):

- Educational institutions offer intercompany training periods designed to supplement in-company training. They are often sponsored by autonomous bodies in the relevant sectors of industry.
- Enterprises form coherent training structures may also be asked to arrange special programs for the trainees.

Besides, there are other models of implementation in collaboration with other enterprises in which the lead enterprise bears overall responsibility for training. In these models, parts of the training are conducted in various partner enterprises in which some periods of training take place outside the regular enterprise. The parts of training may be conducted in a nearby large enterprise with a training workshop on the basis of an order and against repayment of cost.

Some of the comments on dual system are that the rise in the general-education level and age of the youth who take part in the vocational training offered by enterprises and the decrease in job offers have increased the competition between youths. Besides, trainees in the dual system concentrate in more highly valued occupations than the less ones. Moreover, it is harder for youths to obtain training in small or public bodies than the other. Other critics of the dual system also comment that it performs well in the manufacturing than in the service industries (Tremblay & Le Bot, 2000).

2.3.5.3 The Australian Experience

The Australian educational system is organized as primary, secondary and tertiary. The primary education takes seven years of preliminary courses that requires children to start at the age of 5 and ends at 12. It orients the children with the general education and makes them ready to join the society and to the next level of education.

The secondary school starts at the age of 12 and it is compulsory to complete two years of junior high school till the Year 10, after which students have two options: either to pursue their further academic education or choose vocational education. Thus, students should accomplish another

two years of high school diploma. After this, trainees leaving junior high school can go for vocational education or for apprenticeship training to enter the work force. Students whose choice is vocational streams should pass through the apprenticeship training program.

Modern apprenticeship in Australia was believed to start during the colonial time. The kind of training offered during that time was known as state-based apprenticeship which was imported from UK. Young people were indentured to a master craftsman to learn trade or craft. However, when the Australian federation came into being, it was replaced by a new kind of national system of apprenticeship training (NCVER, 2011).

At present there are two types of apprenticeship training programs in Australia: the traditional and the non-traditional. The traditional type includes trade and craft areas like engineering, building and construction, plumbing, automotive mechanics, commercial cookery, hairdressing, and printing. On the other hand, the non-traditional type includes information technology, retail, childcare, tourism and hospitality. No age limits are imposed to take part in apprenticeships or traineeships. Therefore, mature apprentices can be accepted in the manufacturing industries (Misko, 2006).

In the actual apprenticeship practice, apprentices spend all days of the week on job with a training provider except for two days. Although this is the case, some special programs can also be arranged by enterprises for off-the-job training for some times in a year. However, since 1998, a new apprenticeship training program has been introduced to enable apprentices and workers to take part in part-time apprenticeship programs offered at the workplaces (NCVER, 2011).

Besides, trainees in schools have the right to participate in school-based apprenticeships at the end of their secondary school education. However, total school-based apprenticeship trainings are criticized due to their failure in allowing apprentices to have adequate time in the workplaces to complete work tasks and projects and thereby develop vocational skills (NCVER, 2011a).

As in some countries of the world, apprentices in Australia are required to sign training contract with an employer or a group of training company. The agreement ensures the apprentice to earn

a training wage. It also guarantees the apprentice to develop a training plan based on the units of competency to be grasped. This kind of plan is developed by recognized training organization with employers and apprentices (Misko, 2006).

2.3.5.4 The Canadian experience

Education in Canada is divided into primary education, secondary education and post-secondary. The provision of education is left for the provincial governments. Due to this reason there are significant differences in the educational systems of the different provinces. Children in Canada attend kindergarten for one or two years at the age of four or five on a voluntary basis. All children begin grade one at the age of six.

Primary Education is provided to children in every province of Canada till they reach the age of 16. It is compulsory for children to receive primary education despite the constitutional rights given to parents to provide it. The secondary or high school occurs at about eleven or twelve years of age.

Secondary school includes Grades 11 or 12 depending on the interest of each province. After completion, trainees may go to university, college of General and Vocational Education. Learning at this level takes two years of general or three years of technical education. Thus, apprenticeship begins when trainees enter into TVET colleges.

Apprenticeship in Canada is implemented with the cooperative effort of various partners. These partners include apprentices, journeyed employees, employers, unions, provincial (territorial) and federal governments, advisory committees, and apprenticeship boards. An agreement is made among apprentice, government, and sponsor. It is, thus, a three party contract. The sponsor can be an employer or a union. In general, apprentices are required to make a formal registration with provincial or territorial governments' apprenticeship boards (Rauner, Smith, Hauschildt & Zelloth, 2009).

The actual apprenticeship training in Australia takes place both on-the job and in-class training. Part of the formal apprenticeship starts in-class training. Every apprentice will have the option to attend classes typically in six to ten weeks at community or technical colleges. In fact, in some

provinces of Canada, apprenticeship training is also offered at union training facilities (e.g., Ontario). Apprentices earn wages during their training. The wages start at approximately 50 percent of the journey level wage and rise gradually till 90 percent in the final training period (Rauner, et al, 2009). Despite this fact, apprenticeship training fell considerably during the 1990s (Tremblay & Le Bot, 2000).

In conclusion, we can say that all the countries benchmarked follow a decentralized political system. The government structure in the countries mentioned goes down to the lower administrative units. The political system in the countries empowered people to play significant role in the administration of schools and training institutions. Moreover, the evaluation of educational policies, planning, coordination, development and management of education and the management of human resource are run by governmental bodies. The same is true for the administration of the TVET system.

As part of TVET, apprenticeship training program in these countries is governed by law. The law, with coordinated efforts of partners, paves the ground for its implementation. Thus, each partner acts according to the law. Apprenticeship has become the concern of all stakeholders instead of a single body or institution. The law enables the countries to establish procedures for apprenticeship training. Contracts are signed between a training enterprise and the young people. The facilities in the enterprises can be arranged for apprenticeship training. Eventually, the effort helps the countries to produce middle level manpower for both the informal and formal economy. It enables to have a uniform national standard of the occupation. It mainly intensifies enterprise-TVET institutions cooperation.

However, the history of apprenticeship training program in each country differs significantly and so does the level reached. It is the course of history that caused them to have varied experiences. The German TVET system with its subsequent apprenticeship training model has got special attention at present. As a result, the dual system has become more popular all over the world.

2.4 The benefits of skill training in TVET program

Globalization has made transformation of knowledge, especially in the field of information technology, very easy and successful. However, globalization by itself cannot bring the desired results in people's lives unless human beings react. People's reaction, on the other hand, can be expressed in various ways. One way of responding to globalization is the use of the opportunities it provides to meet human needs. TVET, in its part, plays its unique role for the success of development by providing skilled manpower.

Major research processes on TVET in Europe have shown that it assumed to bring various benefits to countries. These benefits enable us to understand how TVET contributes to career development and how it affects productivity, enterprise performance and competitiveness (Cedefop, 2011). These benefits can be broadly categorized as economic and social benefits. The details of each of these benefits are discussed as follows.

2.4.1 Economic benefits

Turcotte and Rennison (2004) argue that the presence of graduates of high level skills and more educated people among top executives and workforce increases the quality of the goods and services they produce, stimulates innovation, and increases productivity and profitability. This can be realized through TVET program. Due to this reason, they emphasize on the value to be given to TVET program.

In another research conducted by European Centre for the Development of Vocational Training (Cedefop, 2011a) in twenty-one European countries, TVET was believed to play economic benefits at micro (in spite of slight variations in benefits regarding individuals), meso (the benefit for enterprise/group) and macro level (the benefits for society as a whole). Accordingly, at the micro level, it is believed to secure earnings, create jobs, reduce skill mismatch, and integrate into the labor market with satisfactory wage. It also provides further career development opportunities and professional statuses.

At meso level, TVET is thought to increase employees' productivity to contribute for profit and firms' innovativeness. Moreover, at the macro level, it has the power to increase public and

private investment in terms of profitability and economic growth. It also reduces unemployment and inequality in labor market (Cedefop, 2011a). However, this kind of research is susceptible to criticism due to the fact that economic benefits, which are more tangible in quantitative terms, may seem less difficult to be measured in terms of outcome.

In a similar research conducted by UNESCO (1992), the following economic advantages of TVET were also cited. First, economic policies providing incentives for investment and employment creation are central to providing jobs for graduates of schools and training centers. Second, adopting the right objectives for TVET is important. TVET works best when focused on existing or future employment and skill needs. Demand-driven TVET is responsive to market needs. It is less effective when addressing supply-driven objectives. Finally, where skill training for specific occupations or jobs is involved, the evidence favors enterprise-based training.

On the other hand, the economic advantage of TVET for African countries is taken to be important as it can play major role in reducing poverty. Evidently, poverty is a challenge for all sectors of development in most of the African nations. This challenge can be alleviated by producing technical skilled human resource for the various economic sectors in an entrepreneurial skill (AU, 2007).

From policy point of view, TVET is also considered as a tool that seeks to provide solutions to the practical problems seen in relation to the shortage of competent manpower. This kind of approach contributes to the economic and social development of a country by improving the livelihoods of all citizens and reducing poverty (MoE, 2008). This can be realized by producing skillful persons.

In line with this, the issue of climate change has currently brought the attention of governments, political leaders, NGOs, researchers, etc. all over the world. Various solutions are suggested and strategies are designed to mitigate the environmental challenges. The issue has gained clear understanding among governments how to identify skill needs for jobs in low carbon economy. It can, therefore, be argued that TVET can play a unique role in the development of skills for green jobs (Cedefop, 2010a).

Being part and parcel of the fight against environmental challenges, TVET institutions were expected to respond to policies by producing skills for jobs in low carbon economy. Even in some EU countries, there were practices to catch the attention of trainees and apprentices to work in low carbon economy. In relation to this, TVET providers were expected to develop links with enterprises in order to make demonstration facilities more attractive for the apprentices (Cedefop, 2010a).

2.4.2 Social benefits

Along with family, the education system is also a primary means for socialization. Occupational socialization is one important way in which TVET, in particular, can contribute for the inclusion and cohesion within societies. Initially TVET contributes to the formation of occupational identities and develops a sense of belonging to a community of practice. In conjunction with this, continuing TVET systems contribute to the further development of personal, social and professional identities. It is true that poor or inadequate skills can lead to lifelong poverty. As a result, the social returns from good education and lifelong learning opportunities will increase (Cedefop, 2009).

Despite its social benefits, the perception of TVET is low as compared to the general education. This fact can be confirmed by the statistical data on the number of enrollees in the various countries across the world. However, it promotes social cohesion by improving the employment and career prospects of people from the most highly skilled to those with low levels of qualification (Cedefop, 2010).

There is a consensus in the role that TVET should play in the socialization of people. So far, little has been written along this line. The process of socialization in TVET can be perceived by its effect. TVET enhances social inclusion by enhancing employability through entry into work or by simply establishing professional socialization. The concept of social cohesion is more popular and can be applied to society as a whole. It may be enhanced through higher rates of employment. Social cohesion also implies levels of intercommunity cooperation and social solidarity across communities and social groups which are likely to be enhanced by relative

equality of incomes, strong social institutions (involved in welfare provision such as health and education) and the prevalence of societal attitudes of trust and tolerance(Cedefop, 2009).

The social benefits of TVET can also be perceived at the micro, meso and macro levels. Thus, at micro level its benefits are measured by the quality of life for individuals and effects on personal development, attitudes and motivation. At meso level, its importance can be seen in the inclusion of disadvantaged or marginalized groups through education and TVET. Its advantage at the macro level is a bit wider since it includes family impacts on skills development, supports health service of a nation, contributes to social cohesion, establishes formal and informal networking, gives low grade of social polarization and reduces delinquency and criminal acts in a society (Cedefop, 2011a).

Similar argument was also established in a research conducted by UNESCO (1992) when the results reflected the views of governments and donor agencies with regard to TVET as a means of achieving a range of social objectives. Among these objectives, supplying manpower to stimulate growth by avoiding skill bottlenecks, improving the employability of the disadvantaged, providing a path to wage employment especially for women, and diverting youth from aspirations for white-collar employment and higher education are the ones.

2.4.3 Benefits of apprenticeship training

Misko, Niguyen and Saunders (2006) argue that apprenticeship has diverse benefits. They believe that apprenticeship training at the enterprises ensures apprentices to grasp the skill, knowledge and attitude of a given job. Apprentices who master skill perform well and show better professional qualities that may ensure them to get a job early. They may even be employed in the enterprises that they were sent for apprenticeship training. This may be realized by responding to a job advertisement either by a direct offer from an employer or by making direct approach.

Besides, employees who undergo the process of apprenticeship training can give positive evaluation of their own employment experience by indicating that apprenticeship can best prepare people for future job. These employees may witness, in their trade, to any friend or

relative, who is in the process of deciding what to do. They can also further recommend apprenticeship training to others.

Also apprentices' satisfaction of a job may lead them to remain in the trade. This enables them to continue with their training contract in the enterprises. However, apprentices who are not satisfied by their apprenticeship training program may not stay in the job. In contrast, an apprentice who is motivated either by short or long-term extrinsic rewards that a trade can, either during or at the end of the apprenticeship, makes him/her stay in the trade. These extrinsic rewards may include financial, educational and personal benefits. Short-term benefits may also enable apprentices to receive remuneration while learning, save money, get qualification papers, and acquire practical experience. In the long-term, this effort can provide with a good future and opportunities for making money (Misko, Niguyen & Saunders, 2006).

The availability of continuous employment opportunity has also an effect on apprentices' choice of a field even when in school. Apprenticeship training makes school leavers feel economically independent since it creates employment opportunity and ensures sustainable work. It also makes apprentices more confident as their profession may be demanded in the market. Moreover, it can be perceived as an easier means to get into and complete a job. Even an apprentice cannot do well academically in school or fail to join the universities.

In terms of future livelihood development, an apprenticeship can obviously help apprentices to establish a career. Apprenticeship training enables apprentices to get a trade and use it as a stepping stone to other careers or further training. Moreover, satisfaction of a work can be considered as a reflection of the intrinsic reward associated with the trade. It provides many opportunities for working with different types of equipment and for learning new skills. It also creates good working conditions, provides opportunities to make good social relations, provides opportunities to school leavers not to be idle, helps apprentice to be creative, and designs to help the community (Misko, Niguyen & Saunders, 2006).

The opportunity of an apprenticeship for developing useful practical skills, knowledge and experience can be mentioned in trades that have undergone the process. Reference can be made

from those who benefited from this opportunity in all the sectors. Professionals in the various sectors have acquired skills required to contribute even for their own personal benefits.

In the light of this, a case research conducted by Field, Hoeckel, Troy and Moonhee (2008) has also confirmed similar results. Employers of a company identified a wide range of benefits from apprenticeship training. However, such qualitative assessment of benefits is difficult to value since it focuses on cases. Nonetheless, it is real and can be considered as a reason why employers are prepared to invest in apprenticeship training. Yet, a wide range of benefits were mentioned by employers during the research.

2.5 The role of motivation in training

People's behavior, in all aspects of life, depends on the level of their motivation (Ellis, 2009). They do an activity that motivates them much and avoid it when they are not. Motivation is, therefore, an intrinsic force that gives rise to people's success in life. However, there are some external factors that contribute for this either positively or negatively. Psychologists call these factors as reinforcements. Depending on the effect they can bring on performance, these are categorized as positive reinforcement and negative reinforcement (Fredrickson & Nolen-Hoeksema, 2009).

If motivation is the main factor for our success in life, it seems valid to describe it, to see the major theories that explain it and the instruments that can be applied to measure it. We closely examine how motivation in training can be developed and measured in relation to the topic under this research as follows.

2.5.1 The concept of motivation

Earlier motivation was considered as a propeller that causes an organism to behave in a certain way (Hurlock, 1981). It is still considered as an intrinsic aspect of peoples' mental energy that has long history of being linked directly to the various types of learning and cognitive processes, including memory formation (De lary, Duncan & Swarth, 2006).

Motivation determines whether a person is capable of learning or not. In addition, an individual's learning ability depends on the view that affects the ability to learn. The motivational condition can, in fact, depend on the way the culture responds to achievements and failures. In line with this, attitudes can greatly affect future learning of a person. It hampers greatly if a person's attitude toward learning is negative and vice versa. Having a negative attitude towards learning may result in weak academic performance. Conversely, a positive attitude promotes better achievements (Freeman, 2006). Other psychologists explain it as purposive behavior instigated by activators that determine the direction and purposiveness of behavior (Bergh & Theron, 2006).

Due to its enduring effect on behavior, the American psychologist Abraham Maslow (as cited in Hurlock, 1981) tried to classify motivation in terms of a six-level hierarchy of human behavior. Accordingly, he ranks human needs as physiological need, the need for security (safety), the need for love, the need for belongingness, the need for esteem, and the need for self-actualization.

There are other psychologists who classify motivation into two major categories; the affective and cognitive aspect. According to them, the motivations that emerge from our basic affective structures make us to share similar behavior with other mammals, whereas the cognitive part enables us to fit in certain social structure (De lary, Duncan & Swarth, 2006).

Motivation can also be explained using some theories in the field. Thus, the most common contemporary motivation theories (Weiten, 2008) are the drive, incentive and evolutionary theories. The drive theory provides explanation for most of the internal state of our physiological needs. But it cannot explain all motivation of human beings, and it has its own limitations.

On the other hand, the incentive theory proposes that an external stimulus controls motivational conditions. Thus, all incentives that we may provide to people at any time and place can play the role of external stimuli that control their behavior. The incentive theories can also help us to explain the relationship of learning and experience in controlling motivation (Fredrickson & Nolen-Hoeksema, 2009).

The evolutionary theory, on the other hand, explains that the motives of both human beings and other species are the products of evolution as anatomical characteristics. Hence, it is argued that natural selection favors behavior that maximizes reproductive success by passing it through genes to the next generation. Motives such as affiliation, achievement, dominance, aggression, and sex drive can be explained in terms of their adaptive values. If one motive is vital to species, it is due to its reproductive or survival advantage. For instance, the need for dominance is greater for male than female since it is assumed to facilitate males' reproductive success in different ways (Weiten, 2008). However, we cannot describe all motives using the evolutionary theory. Thus we can cast doubt on its completeness.

By taking into consideration all the prevailing conditions of the workplaces, it can also be argued that both the psychological and the workplace factors give shape to motivation (Bergh & Theron, 2006). These factors, in general, can be broadly classified as external and internal activators. The external activators include reinforcement, job content and Job design. On the other hand, the internal activators include self- actualization, expectancy, self- efficacy, attribution, equity, goal setting and emotion. It is true that, as a dynamic process, these activators can be changed through time.

Reinforcement is believed to be the most significant external activator in motivation. Depending on the consequences, it can have both negative and positive motivational values in the workplace situation. The job content (that includes the structure, design, component and requirement of the job) is also believed to have external motivational value to the worker as it has an effect on the intrinsic work motivation for them. Job design (that includes job rotation, job enlargement and job enrichment) plays the role of external motivation as it may enable the worker to observe his or her performance as fulfilling intrinsic needs. The internal activators are the psychological processes that can subjectively determine one's motivational value in the work situation (Bergh & Theron, 2006).

2.5.2 The measurement of vocational motivation

Motivation, being influenced by interest, values, and preferences, has the power to determine our selection of an occupation. However, decisions on the selection of an occupation can, at times, be influenced by chances rather than self-evaluation and information about the occupation. To this end, devices for the assessment of vocational motivation or interest have been developed to assist in the process of self-evaluation and counseling. The introduction of these instruments has brought life satisfaction and vocational productivity (Gregory, 1996).

The level of vocational interest of people towards a predetermined goal can be measured by the application of various methods of scaling system. For instance, we can measure vocational interest using the MVII, the GSZIS, the OII and the VIA. However, KGIS and SVIB (or its latest version SII or Strong Interest Inventory of measurements of vocational interests) are taken as the most common ones (Freeman, 2006).

On the other hand, Gregory (1996) was placing emphasis on the major vocational motivation tests as SVIB/or its latest version SII. Similar stands may be reflected by other scholars in the field. Notwithstanding the availability of varied vocational motivation tests and their application presuppose the fulfillment of certain assumptions or basic conditions.

Without deemphasizing the role that each test can play for the sake of this research purpose, we shall, however, consider only two of these instruments. In fact, the selected instruments are thought to have direct relation with the purpose of the research as they are thought to measure the vocational interest of individuals. In view of this, the first instrument chosen in this research is the KGIS - an instrument that can be applied on children and adults.

The Inventories are designed in the form of three inclinations of records; namely, vocational, occupational and personal. The first one provides scores in ten general vocations. These are outdoor, mechanical, computational, scientific, persuasive, artistic, literary, musical, social service and clerical. The second one includes thirty-eight specific occupations like farmer, newspaper editor, physicians, minister, mechanical engineer, counseling psychologist, architect, retail trader, etc. On the contrary, the third one evaluates the five very broad personalities (but

not personality traits) of individuals like being active in groups (insurance salesmen, clergymen, industrial engineers), familiar in stable situations (farmers, tool makers, high school teachers), working with ideas (professors, authors, business presidents), avoiding conflict (physicians, accountants, professors) and directing others (lawyers, business executives, policemen). High scores in each of the above categories indicate preference for the activity (Freeman, 2006).

According to Kuder (as cited in Freeman, 2006), the item in the above three preference records consists of three statements from which the subject selects the one he/she likes most and the vice versa. The items are then scored to yield a profile representing the ten vocational areas. A person's scores on each of the ten areas is converted into percentile rank and the resulting profile is analyzed with the view to determine in which area the individual's interests and preferences are strong.

Identification of vocational area may not show the one or several occupations a person should enter. Kuder, therefore, listed the various occupations that are associated with it and that can be considered. He has enumerated possible interest under various pairs of preference such as mechanical-artistic, mechanical-scientific, scientific-artistic, scientific-social service, persuasive-literacy, etc. In selecting items and standardizing the vocational preference record, kuder used behavioral description and statistical analysis in order to find sets of items, each having a high degree of internal consistency and low correlation with the other sets. The items in the Occupational Preference Record were selected on a different basis by determining which item discriminate between each of the chosen occupational groups and norm group.

The other kind of tool applied to measure vocational interest is the SVIB or its latest revision the SII. SII is assumed to be the oldest and more prominent instrument in the psychological testing (Gregory, 1996). It is a self-report measure of vocational interests and one of the most popular instruments in the psychological research and practice as well. Due to this reason, information gathered through this instrument is applicable in decisions related to vocational choices and career developments for various social and institutional groups (Dik, 2006).

However, SII has undergone the process of constant revision. For instance, in 1996 there were 317 items grouped into seven sections in the SII. However, in the 2004 booklet of the SII there were 291 items divided into six sections only. Taking into consideration the current SII instrument, it is agreed that there are six sections contained in it; namely, occupations, subject areas, activities, leisure activities, people, and characteristics. In the first five sections, respondents are expected to show their degree of interest by responding to a five-point scale ranging from 'strongly like' to 'strongly dislike'. The items for the sixth section also use a five-point scale ranging from 'strongly like me' to 'strongly unlike me'. High scale scores are used to encourage clients toward career fields in which they show high levels of interests. It is scored separately for each occupation. The results of ratings are considered indicative of the individual's interest in each occupation (Dik, 2006).

The criteria for judging the validity and reliability of the Kuder and SVIB/SII interest measurement instruments in particular and the other instruments in general can be determined by employing the right kinds of validity and reliability testing mechanisms pertaining to each test instrument.

In conclusion, we can ascertain that vocational interest of an individual can be measured by the application of vocational interest inventories. Currently, there are varied kinds of them applied all over the world. However, their choice and application requires careful research of the instruments themselves and the situation where and how they can be applied. A better choice of an occupation identified through the application of the instruments can bring occupational satisfaction to the individual.

2.5.3 Motivation in vocational training

Early studies on vocational motivation have shown that children's interest toward a given vocation begins during early childhood. This motivation is believed to arise when some people ask them questions related with vocational motivation. However, this is not the only means for vocational motivation to come into being. There are also other factors like peer and the mass media that can influence them the most (Hurlock, 1981).

In relation to this, early studies confirmed that the interest increases when children enter school and get the opportunity to discuss on the matter in detail with their age and class mates. Any decision/choice by the child on a given vocation could not be taken for granted. This is due to the fact that vocational motivation could not be determined by the exertion of a single factor alone. There were also other factors. For instance, parental attitude, prestige of vocations, admired people, abilities and interests, sex appropriateness, opportunities for independence, cultural stereotypes and personal experiences that exerted influences on the vocational motivation of children were among the many. As a result, children's attitude toward a given vocation would be established firmly when influenced by some of these factors (Hurlock, 1981).

However, in a recent research conducted in Australia to identify the factors that can explain why trainees enter or do not enter into TVET apprenticeships, it was discovered that three main reasons play the major roles (Misko, Niguyen & Saunders, 2006). These are career motivation, cognitive ability and socio-economic background. In career motivation, the traditional trades do not appear to be attractive to young people, particularly to females. Moreover, the majority perceive vocational education and training (VET) to suffer from negative public attitude.

It was also confirmed in the research that socioeconomic background has an influence on trainees' career choice. The research has ascertained that the unskilled socioeconomic background (parents' educational attainment, occupation of trainees) is considerably lower than for those from professional backgrounds to choose vocational career.

There is an understanding that there are some important social groups that influence children's motivation. Among these groups, parents, teachers and peers are the most influential ones. Teachers act as role models for young people by trying to make sense of life. This can also influence children when they make career choices. Studies have reported that trainees' parents support what their children choose to do in their lives. It can be argued that peer group can also influence trainees' academic choice. The same can be said about TVET or an apprenticeship choice (Misko, Niguyen & Saunders, 2006).

The research further reported that parents discouraged their children from pursuing an apprenticeship. Various reasons were cited for this. The most frequent one is parents' interest for their children to go to university or technical and further education studies, or remain in school to complete their secondary schooling. On the other hand, trainees reported that parents requested their children to research hard and to get an education so that they could get jobs with better payment. Whereas, non-encouraging parents were reported to have warned their children not to be engaged in apprenticeship because it had no money in it and its programs were not conducive (Misko, Niguyen & Saunders, 2006).

Conley and Karabenick (2006) explained reasons for the motivation attributed to learners own behavior. In view of this, they considered three different approaches to describe how learners motivate. One approach is to consider motivation in terms of interest, as an individual's attraction to, or liking or enjoyment of a particular task or domain. The other approach was associated with the concept of wanting; hence, in terms of value that can fulfill needs or facilitate achieving goals. A third approach explains trainees' goals, or their reasons for participating in achievement related activities. Critical scrutiny of each of the above reasons can contribute to learners' motivation.

2.5.4 Evaluation of training

Earlier in an experiment conducted by Roscoe and Willigies (1980), the result of training was measured by its application to a new situation. The transfer of training results to a new situation was checked by using two groups; namely, the control and experimental group. Accordingly, one group devoted 500 hours to the research of literary German during two years of class work and the group devoted an average of 100 hours to the research of the key to rapid translation of German. At last members of both groups required an average of 100 hours of individual tutoring to reach criterion performance in translating German. Members of the control group with no prior research of German required an average of 200 hours of tutoring to meet the same criterion. Thus, the result of the experiment has shown that knowledge gained through training was transferred easily to situation that can be applied.

In another research to investigate the relationship of motivation to transfer skills and knowledge learned in computer based training; Seyler, Holton, Bates, Burnett and Carvalho (1998) have identified individual attitude and environmental variables as the most influential contributing factors. In a recent research to identify the conditions that can facilitate the transfer of training, Pham, Segers and Gijsselaers (2010) also identified trainees' motivations and the trainees' use of transfer strategies as the most influential ones. They further recommended reinforcement as an instrument to raise trainees' self efficacy and motivation to transfer, as well as to support trainees in the development of their own learning transfer strategies.

Besides, from the experiment results mentioned above, using simple observation even, one can practically observe the application of training in day to day training programs. No matter when, where, how and who organizes training, its objective is to alter people's knowledge, skill and attitude in relation to a training objective. Its focus will be to bring a 'change'. The change in knowledge, skill and attitude should be measured. Unless this is applied, it would be difficult to design and implement training.

The motivation of training is evaluated by assessing the satisfaction level of the trainees with the training and their opinions about its applicability on the actual job. Hence, it is evaluated by the supervisors themselves or by another external group who may examine the materials and the way they are presented to the trainees. The motivation in training can also be shown by demonstrating the skill learned. This can be seen when the trainee uses what was learned to perform a new task within a controlled environment of the job situation. This requires the trainee to apply learned material in new and concrete situations (CalSWEC, 2004).

However, the selection of tools in using them to collect data for measuring training depends on the purpose of the training. If the purpose is to take corrective measures during the training process, formative evaluation takes place; whereas, summative evaluation takes place at the end of the training. At times, even an assessment of the impact of training on employee performance can be evaluated (Eseryel, 2002).

In line with this, Kirkpatrick (as cited in Phillips, 2004) forwarded four levels of assessing training effectiveness. According to him, evaluation of training must start with level one and should go up to level four. These levels are described as follows:

- A measure of participants' reactions to a course. Most of the time reaction in this level (first level) is assessed through surveys.
- A measure of the amount of information that participants gained and can be assessed using criterion-referenced tests in the second level.
- A measure of the amount of material learned and applied by participants in their everyday work. This level (third level) is assessed using observations and interviews with co-workers and supervisors.
- A measure of the financial impact of the training course on the bottom line of the organization. However, the assessment the fourth level is not clearly defined by Kirkpatrick.

Some researchers, recognizing some shortcomings of Kirkpatrick's four level approaches, have attempted to modify and add basic framework. To this end, Kaufman (as cited in Tüzün, 2005) has expanded the definition of Level 1 and added a fifth level addressing societal, client responsiveness and consequences. This moves evaluation beyond the organization, and examines the extent to which the performance of program has brought to the society and environment surrounding the organization (Tüzün, 2005).

The simplicity of the model has caused it to be the most widely used methods of evaluating training programs. ASTD's survey which reports feedback from almost 300 Human Resource executives and managers revealed that more than fifty percent of organizations that conduct evaluations use the Kirkpatrick model. In addition, it is still one of the most widely used approaches (Tüzün, 2005). In any case, we should understand that various methods of collecting data can be employed to check the effectiveness of training.

2.6 Epistemological issues in apprenticeship training

Under this topic, we shall begin by asking questions: What is apprenticeship? How can it be explained? Thus, by considering the main issue of the present research, we can describe apprenticeship as a contract of employment and training agreement between the employer and

the apprentice (at times signed by his/her parents and the company as in countries like Swiss) with the aim of providing skills in a given occupation. It has its own implementation procedures based on the contractual agreement made by the two parties: the employer and the apprentice (Cedefop, 1999).

Apprenticeship is still a subject of debate among scholars in the field. Some see it as purely economic phenomenon and others see it as a complex social and cultural process (De Munck, Kaplan & Soly, 2007). Most of the time, however, the social dimension of apprenticeship is overshadowed by its educational framework and appears explicitly on-the-job apprenticeship. The vocational aspect, on the other hand, can be observed directly in the course of apprenticeship training within the social relation it takes place. The technical apprenticeship is at the same time social apprenticeship. It enables to learn both technical discipline and social discipline, which may vary at different times and in different systems (UNESCO, 1984).

However, apprenticeship can be generally described as learning by doing. It is not a practice only for the early times. It has also become a need for the current labor demand as it satisfies the labor demand of many of the economic sectors. This is due to the fact that occupational skills can be learned in settings that resemble their final application. Besides, the occupational skills depend on the context in which they are acquired (De Munck, Kaplan & Soly, 2007).

Occupational skills can be interpreted with reference to the social context they take place. The same can be said about apprenticeship since acquiring skill depends on the material and social context of learning. Thus, trainees can produce knowledge either in the school or outside. Eventually they incorporate new knowledge and skills in the cognitive structure gained earlier (De Munck, Kaplan & Soly, 2007).

Apprenticeship can also lead to self-regulative knowledge. It involves the knowledge and control of people over their own activities such as working habits, and ways of thinking and learning (Virtanen, 2008). Other explanations can further be forwarded to the concept. Consequently, it seems necessary to see some of the theoretical explanations known so far that can better clarify the concept of apprenticeship training.

2.6.1 Apprenticeship training as an observational learning

Human beings learn a great deal through observation and imitation. According to Albert Bandura, a pioneer in the research of observational learning, this type of learning plays an important role in a child's development. Bandura found evidence that children learn traits, such as industriousness, honesty, self-control, aggressiveness, and impulsiveness by imitating parents, other family members, and friends (Bandura, 1977).

This kind of learning method is also applied in apprenticeship training since it requires the apprentice to observe the craftsman or craftswoman at the enterprises, industries or workplaces. Basically, craftsmen or craftswomen are skilled people in their profession. Thus, they show remarkable achievements in their profession and can be imitated by novice workers or apprentices.

2.6.2 Apprenticeship training as situated learning

Learning and knowing are situated in a specific context. Accordingly, the most appropriate instructional method is the one which incorporates the presentation of knowledge with the context in which the learner can apply it. Thus, the various forms of workplace learning all provide the situated learning opportunity that increases the learner's knowledge, skill and attitude (Simeoni, 2005).

In the light of this concept, Lave and Wenger (1991) argue that engaging in practice may well be the condition for the effectiveness of learning. If learning bases itself on practice, the probability of its staying power will be high. Consequently, its power to bring a change on the part of the learner will increase. In contrast to the classroom learning activities which involve an abstract knowledge and out of context, situated learning is more contextual and empirical (Lave and Wenger, 1991). The same is true as in the case of apprenticeship since it bases itself, most of the time, on the imitation of skills or practices from craftsmen and craftswomen in an industry. This kind of situation creates opportunities for the trainee (apprentice) to apply the theoretical knowledge it gained from schools. As a result, it will be easy to apply the skill and knowledge to similar situations.

2.6.3 Apprenticeship training as an experiential learning

Experiential learning/training considers the experience of learners/trainees in a given learning/training situation. It does not consider learners/trainers as simple participants; rather as the ones who can share their experiences. It asserts that learners/trainees can be donors of knowledge than only recipients of knowledge. It thus promotes the modern way of teaching/ training method as opposed to the traditional way of teaching that emphasizes teachers' centered style of teaching/training process (Hobbs, 1992).

In similar ways, apprenticeship training can also be seen as a method of training that involves trainees' experience. A trainee/learner makes discoveries and constructs knowledge instead of merely researching or hearing from others. This kind of learning method is helpful in the transition from school to work (Simeoni, 2005).

It is true that trainees at the enterprises are not recipients only. They can share their theoretical knowledge to the supervisors. As a matter of fact, they acquire better theoretical knowledge in colleges/training institutions than in enterprises. Besides, they gain and accumulate knowledge and skill from various situations in different ways. Eventually, during the course of training at the enterprises, they enter into social intercourse that may enhance experience sharing.

2.6.4 Apprenticeship training as cooperative training

When applied to TVET, cooperative training shows all forms of training conducted in collaboration with TVET institutions, enterprises and other stakeholders. The training takes place simultaneously in TVET institutions and in the workplace. The training in the enterprises is believed to encompass practical skills and the application of theory. Accordingly, the trainee goes to TVET institutions for a specific period of time to acquire specific theoretical knowledge and basic skills in some selected training topics. It requires a general agreement between TVET institutions and enterprises. It is thus a group of training that is accomplished with TVET institutions, enterprises and other stakeholders (MoE, 2007).

In relation with this, it has become common to hear or observe a new concept, likely combined with cooperative and apprenticeship, forming a new concept called cooperative apprenticeship

(Cantor, 1997). It conveys a new message and a new training model. Cooperative apprenticeship is more structured, poses formal obligations on the enterprises, labor unions, TVET Colleges and on the apprentices. The role of each party is well defined by law. The law specifies the respective rights and obligation of all the actors involved.

2.7 Implementation problems of apprenticeship training

The researcher believes that discussions on the implementation problems of apprenticeship training have effect on the purpose of the current research activity. This was due to the fact that the purpose of the research aims at identifying the causes of apprenticeship training program in the specific research area. In view of this, factors that can hamper the apprenticeship training process were investigated based on the available literatures at the global level. However, relevant research reports at the local level were not much developed.

The implementation of apprenticeship training program may start by setting clear objectives and passing through a series of steps. It begins by conducting needs assessment. In doing this, it collects data to assist people in fulfilling their training needs. Cantor (1997) describes these steps as Mega, Macro and Micro levels. At Mega level, we ask a question of how apprenticeship training can meet the needs of the business community. In the next Macro level, we try to entertain the needs of both private and public TVET institutes by asking questions on how apprenticeship training assists to meet the instructional needs of the institutions. At the Micro level, the concern will be on how trainees' apprenticeship can help them to meet their training needs.

However, Muller and Gangl (2003) emphasize only two levels (the macro and micro level) by placing the needs of workers and potential employers under one category. They argue that these two levels are inseparable. Thus, trainees leaving the educational system aspire for a job that can return for their investment in training. The employers on their part expect to get trainees who are more skillful. As a result, they insist that we should consider the needs of these two groups together. Although there appears a difference among scholars in treating the apprenticeship needs of the stakeholders, it seems imperative to conduct needs assessment prior to the implementation of apprenticeship training.

However, the implementation of apprenticeship training cannot be seen in isolation from the TVET program since it is part of it. The implementation of TVET, in turn, can be perceived as a vehicle to realize the plans set by training institutions at national or institutional levels and to effectuate the consensus reached even at the global level on TVET (international convention on Technical and Vocational Education by UNESCO in 1989). TVET implementation is, therefore, an instrument that ensures the achievements of the objectives set in TVET in general and apprenticeship training in particular.

Various factors can contribute for the unsuccessful implementation of apprenticeship training. Among these, we can mention the failure to maintain partners' coordination. It is true that the implementation of apprenticeship training should be supported by institutional arrangements among unions, industries, training providers and state regulatory authorities. The training arranged in this way may last for some months to years of training and has got a kind of recognition and acceptance. It is accompanied by a kind of wage system arranged with industrial sectors. This kind of arrangement requires specific agreement of the partners. However; in the actual practice the remuneration of apprentices varies from country to country and even among individual states (Field, Hoeckel, Troy & Moonhee, 2008).

In a research conducted in India (Aggarawal, 2004), some implementation problems related to TVET were identified. This research, in fact, lacked clarity in reporting on when, where and how it was conducted. However, it has mentioned some important points that could impede TVET implementation program. When subsumed, they can be categorized into the following major issues: problems related to college facility/ lack of equipment and apparatus, lack of suitable books, learning and teaching materials, problems related to trainees lack of experience, presence of heavy work load and failure to choose appropriate occupation, problems related to teachers' lack of professional competence, problems related to college administrative and supervisory body and problems related to lack of cooperation with various institutions.

Another country specific research on the implementation of apprenticeship training has identified the other implementation challenges. In a research conducted in England, the implementation of

apprenticeship training program, according to a given framework, was found not to meet its quantity and quality aims. Its contributing factors were mentioned as weakness in clear definition of what constitutes apprenticeship training, its educational components, lack of employee involvement and failure to recognize the other options of college-based TVET trainings ahead of time (Brockmanna, Clarke & Winchb, 2010).

On the other hand, in a research to identify and explore the perceptions of individuals, unions, employers and governments in Canada, it was discovered that various factors can negatively contribute for accessing, maintaining and implementing apprenticeships. These generic barriers have been grouped into nine categories, each reflecting negative conditions for apprenticeship implementation (CAF, 2004): negative attitudes toward apprenticeship and some trades, a lack of information and awareness of apprenticeship, difficulties in accepting workplaces or training environments, due to problems related with apprenticeship costs to individuals, employers and unions, due to problems related with lack of resources to support apprenticeship, presence of weakness of workplace-based and technical training, and due to lack of regulations governing apprenticeship

The methodology used in the CAF's research report focused on secondary data and supported by primary data gathered from stakeholder interviews and focus-group discussions. The report based itself on qualitative data and could not show the true picture of the problem all over Canada. It thus needs to examine and discuss the problem as it is seen by the public further. However, all the factors mentioned above contribute, either positively or negatively, for the success of apprenticeship training program since it is one component of TVET.

Despite the general facts mentioned above, it seems necessary to discuss some of the specific factors that can severely affect the implementation of apprenticeship training. Due to the magnitude of their influence on the implementation of apprenticeship training, the researcher identified the following factors to be the most influential ones.

2.7.1 Lack of legal framework

Governments, as main stakeholders in the implementation of TVET strategies, can play their discrete roles by enacting laws. This kind of support contributes for the successful implementation of TVET by facilitating the following conditions (UNEVOC, 1999): establishing strong relation between the public and private sectors, creating national qualification framework, balancing the supply and demand side of TVET program, ensuring the coherence of the training program and linking the formal and non-formal TVET program.

However, in a research conducted in Mexico, employers reported that the lack of legal arrangements was found to be a barrier to the expansion of workplace training in TVET. Accordingly, the need to establish an act was recommended (Kis, Hoeckel & Santiago, 2009).

Due to the fact that the law passed either by the national or regional body, many state the conditions under which technical, vocational education and training, should take place either in schools or enterprises and their respective facilities (Cedefop, 2005). As it can practically be observed, the current TVET delivery system is accomplished with a close cooperation of partners. Due to this reason, these two bodies (training institutions and enterprises) enter into agreement for the implementation of TVET practical attachment programs. This kind of agreement should be defined by law.

The law also defines the rights of individuals and institutions in TVET. It explains the responsibilities of state and other administrators. The law specifies the different actors of the TVET program. It also defines the duties and responsibilities of each actor. Within this framework, each of them will be required to execute its duties.

Moreover, the law specifies legal obligations of the main players involved, introduces a uniform system for evaluating the quality of TVET courses, introduces incentives for all entities involved (supervisors, trainees, employers), introduces work-based training schemes, introduces a levy system, provision of training for the unemployed, and stipulates rules for operating an information-counseling system which would facilitate understanding of the TVET provision (Cedefop, 2005).

However, the presence of a law by itself can't bring the desired results. Hence, the law should be translated into practice. The translation of laws into practice may at times face its own challenges. The causes for these challenges may vary. In line with this, a strong Monitoring and Evaluation system should be established.

2.7.2 Inadequate financial resource

Traditionally, the burden of the TVET financing system was left alone to the trainee themselves, to the enterprises and to the state (Ziderman, 2001). However, to date the public spending of TVET, as observed in some nations, is high and the most common basic funding model consists of two separate systems only. The first kind raises public and private funds to finance public provision of training and the other funding system relies on private funding for private provision. In public provision, the sources of funding are direct budget allocations, cost recovery (trainee fees), and in some countries, revenues from a training levy paid by businesses. In private provision, the sources of funding are tuition and fees paid by trainees (EC, 2006).

However, the financial requirement for running TVET program is expensive. Due to this reason, the need to cover the cost of public TVET institutions is high. This approach causes severe budgetary burden on the part of public resources. Since financing for training in TVET comes from direct budget allocations of the treasury to the training authorities (EC, 2006). As a result, various financial generating means have been suggested in the area. Cost sharing method has been proposed and implemented as one means of financial source in some countries of the world.

The justification for cost-sharing with trainees is that since TVET graduates benefit from higher incomes, due to increased employability and better payment, they should contribute to bearing the cost of TVET. On the other hand, if TVET fees decrease then it may exclude some trainees from accessing TVET program. These risks can, in fact, be mitigated by selective exemptions and selective grants to trainees. This trend creates a considerable burden on public budgets when the number of deserving candidates increases. However, equitable cost-sharing through loan schemes can be implemented to solve this problem to a certain degree (GTZ, 2006).

There is also another method of raising finance for TVET program in the form of tax raised by apprenticeship providing institutions. This kind of tax system is imposed by governments. Accordingly, enterprises can raise fixed percentile value of finance in the form of levy system for TVET programs. Stakeholders who are responsible for this payment raise the money too (GTZ, 2006).

Another way to develop resources required in the TVET system is increasing the income-generating capacities of TVET institutions. Various incomes generating schemes can be designed and implemented in each TVET institution. This kind of approach enables TVET institutions not to stick to one means. This may be realized by improving the management of TVET institutions and by introducing regulations regarding the use of generated funds (MoE, 2008).

Income-generating schemes can also be realized by selling TVET services to enterprises in an effort to diversify and expand sources of income. However, this kind of income generation system raises concern which subsidized public provision of training that creates unfair competition with private providers who must compete on the basis of cost (EC, 2006).

A different financing mechanism was proposed by UNESCO-UNEVOC (as cited in Simiyu 2009). These mechanisms were enterprise financing for training its own labor force, private and public sponsored financing, and international donor assistance.

The other method of generating financial incentives for trainees who participate in the TVET is motivating them to stay in the training. In countries like Belgium, the Czech Republic, Germany, Estonia, Ireland, Spain, Italy, the Netherlands and UK, money is directly allocated to trainees. This approach enables learners to take part in the training. Besides, it contributes for the development of positive attitude, motivation and participation of trainees toward TVET (Cedefop, 2010).

A new funding mechanism, such as performance-based allocations for training institutions, training funds directed to end-users of training services, and increased cost-recovery with targeted assistance to the poor should be applied. This would require empowering training

centers, letting active participation of the private sector in the management of the training fund, establishing new management models for training centers development of a voucher system, implementing new indicators and benchmarks for measuring performance, and creating a field for public-private competition for funds (EC, 2006).

To sum up, as seen above, there are different ways of generating fund for the implementation of apprenticeship training. These are proposed and applied by various institutions. However, the choice of applying the right method depends on the consideration of different conditions of a given country. Despite this fact, the implementation of TVET or apprenticeship training ever requires finance.

2.7.3 Lack of stakeholders' participation

It is crystal clear that stakeholders are groups and individuals who have legitimate personal or professional interest in the operation of the scheme (Hodkinson, Sparkes & Hodkinson 1996). The term is more popular in TVET and may mean persons or groups that have a stake in TVET activity. It includes a wide social groups like employers(both private and public), the business sector, workers and employees represented by Agency and professional associations, public and private TVET providers, civil society and NGOs, people living and working in rural areas represented by relevant associations, teachers/instructors in the TVET system, trainees and their families, and public authorities in charge of sectors relevant for TVET; notably, education, capacity building, agriculture, trade and industry, labor and social affairs, health, youth and sports, and finance. These groups could form the TVET Council (MoE, 2008; Hodkinson, Sparkes & Hodkinson, 1996). Each of these groups plays a unique role in the implementation of TVET program in general and apprenticeship training in particular.

The number and kind of stakeholders who belong to each sector may differ depending on its nature of the trade. Stakeholders who may deserve for the education sector may be different from the agriculture or health sectors. Furthermore, the role of each of these stakeholders may differ from country to country. For instance, in Germany, all stakeholders jointly set the curricular standards, practical requirements and further particulars for TVET (Kathrin, 2010).

There is also a need to involve all stakeholders of TVET in the planning, policy making, training delivery and monitoring and evaluation system (GTZ, 2006). This may, in fact, result in the successful implementation of the TVET program. Besides, stakeholders will develop the feeling of belongingness to the TVET program as whole. If all stakeholders of TVET program are thus involved in all aspects of the design of the program, its implementation will be relatively easy.

For effective linkage of the TVET curriculum and future workplace ethics, skills and positive attitudes at workplace; it is advised that all stakeholders of education including industry and employers be involved in the process of curriculum development (Anamuah-Mensah, Asabere-Ameyaw & Dennis, 2007).

From policy point of view, some major roles of stakeholders for TVET program, in the Ethiopian context, were also cited (MoE, 2008). These functions of stakeholders were policy development and policy drafting and reviewing through participation in relevant bodies and panels, financing through contributing resources to the TVET system, quality assurance through active involvement in the setting of occupational standards and conducting occupational assessment, TVET delivery through the provision of training to their own staff, offering internships to trainees and providing apprenticeship training and Monitoring and Evaluation through participation in TVET councils at federal and state levels and taking over key roles on the Management Boards of TVET institutions.

However, there is a major criticism by educators on the weak link between TVET institutions and stakeholders especially with the enterprises. Thus, some enterprises/industries do not trust schools in teaching trainees what they know. As a result, enterprises/industries have little faith in the training style of TVET institutions as they lack skill. TVET institutions, on the other hand, question the interest of enterprises/industries toward them since they do not consult them the skill demand. This kind of negative attitude hampers the ultimate production of skillful person (Olson, 1997).

In a research to investigate the training requirements of an industry, it was proposed that proper collaboration between the industry and TVET institutions is vital in the face of changing

technological trends. Its implication is that the link between the TVET training institutes and the potential employing institutes should be strengthened to produce graduates with the right kind of occupational skills (Omondi, 2008).

2.7.4 Weak Monitoring and Evaluation system.

From theoretical point view, it can be argued that Monitoring and evaluation (M&E) of any planned activity provide better means for learning from previous experience. Improving service delivery, planning and allocating resources, and demonstrating results as part of accountability to key stakeholders are beneficial. However, the choice of using the tools and methods appropriate for any given context will depend on various considerations. These include the uses for which Monitoring and Evaluation is intended, the main stakeholders who have an interest in the Monitoring and Evaluation findings, the speed with which the information is needed, and the cost (World Bank, 2004).

The Monitoring and Evaluation process in TVET system may target on services, plans, and resources allocated, and outcomes expected from each TVET institutions. In fact, the degree of performance differs from training institution to institution. Over the past years, TVET reforms and programs have been implemented in some corners of the world. The main intention of this effort is to produce skilful workforce based on the competence standards set by the enterprises/industries. Consequently, a skilful manpower, along with the middle level manpower demand, was managed to be produced. The impact of the program or TVET performance on the country's economy and on the life of trainee requires the selection and application of the right Monitoring and Evaluation tools.

However, there exists misconception on the clear meaning of the terms of Monitoring and Evaluation in the TVET context. This was due to the fact that some people may perceive monitoring as a task that uses unorganized form of collecting data on some indicators. On the other hand, some people may not consider it as a continuous activity that can generate information for the management and the main stakeholders of the TVET institutions.

Evaluation is not also perceived as an organized assessment of an ongoing or completed TVET training program. Basically, its aim is to determine the relevance and achievement of objectives, development efficiency, effectiveness, impact, and sustainability. It gives information on where the process of undertaking is at a given time in relation to the expected outcomes. It provides evidence of why targets and outcomes are or are not being achieved (OECD, 2002a) (as cited in Kusek & Rist, 2004).

A close scrutiny of Monitoring and Evaluation in the TVET context shows a different situation. TVET programs are very often not planned to meet observed or projected labor market demands. This is due to the fact that there is no tradition in forecasting middle level human labor requirements in some countries. Most of the time, the emphasis appears to be on helping the unemployed to find jobs without any critical attempt to match training to available jobs. Consequently, many vocational school graduates find jobs or find themselves in jobs for which they have had no previous training (AU, 2007).

From policy point of view, non-targeted skills development can also be seen as one of the major weaknesses of the TVET system in many African countries. Training institutions do not follow up the employment destination of their graduates. Thus, valuable feedback from past trainees on the quality of the training they have received and the opportunity for their experience-based inputs to be incorporated in the review of curricula and training packages are lost (AU, 2007). This kind of problem can be attributed to the existence of inadequate Monitoring and Evaluation system that can hamper the implementation of TVET strategies and programs. The case can be true as in the Ethiopian context since the current TVET Monitoring and Evaluation system is in its infant stage (MoE, 2010).

In line with this, studies discovered that the mechanisms for monitoring the quality of workplace training were found to be few and weak. Even if they exist, they did not let trainees to prepare a report on their practical training signed by the receiving firm, and sometimes the college may not be in contact with the firm. However, the criteria for monitoring firm-based training were weak in general. Even the legal framework regulating workplace training was weak as there was no

contract signed between the receiving firm and the trainee setting out the conditions of training (Kis, Hoeckel & Santiago, 2009).

2.7.5 Poor public perception of the TVET program

It is true that the general public in some countries of Africa has no positive attitude toward TVET (Simiyu, 2009). The situation is not different in the Ethiopian context. Lack of awareness of the society on TVET benefits was felt as a critical challenge (MoE, 2010). There were different causes that may give rise to it. As one expression of this, we see the public considering the vocational training as fit for only the academically less gifted people. Consequently, trainees entering the vocational education stream find it difficult to proceed further in joining higher institutions. Thus, there is a need to make TVET more attractive, as an academic education, by all trainees (AU, 2007).

In fact, measures have been taken by governments to improve the negative attitude of the public toward the system. In European countries, for instance, improving the attractiveness and image of TVET is on the agenda of the education systems. As a result, policies were designed as remedial measures to change the attitude of the public. Accordingly, the following policy measures were taken by some governments of Europe (Cedefop, 2009b): modernizing TVET programs and curricula through modularization, establishing national qualifications systems or frameworks, establishing competence-based programs, increasing access to higher education, improving the quality of TVET, diversifying TVET programs and pathways, integrating vocational subjects into general programs and vice versa, and strengthening information, advice and guidance activities.

Other measures can also be taken to change the attitude of the society. These measures, by and large, focus on the provision of clear, reliable and timely information to all, including the public, by appropriate means. The information can be obtained from different sources (Cedefop, 2011). The information dissemination technique may include establishing special department, generating publications, holding discussions, using the mass media and testing different communication methods.

In a similar research conducted in Ghana (COTVET, 2011), it was discovered that TVET was poorly perceived by Ghanaian. As a result, it was considered as an option for those unable to score better grades to enter into higher institutions. It has thus identified its negative consequence on the career opportunities available to Ghanaian youth. The research further suggested some measures that should be taken to change the negative attitude of the public. However, the situation may not be different in most of the African nations.

Thus, the following practical actions were recommended (COTVET, 2011): the need to conduct a promotional campaign to improve perceptions of TVET, the necessity of establishing career advice and guidance system in the TVET colleges, the need to expand policy and legislative platforms for TVET, the need to improve the links between industry and training and the need to conduct capacity training for master crafts persons. It may seem unrealistic to expect immediate results regarding some of the above measures as they have a link with attitude.

In another research conducted in Kenya, measures were taken to change the negative attitude of the public toward TVET (Simiyu, 2009). Institutions offered a variety of programs that attracted prospective trainees from across the country, programs were widely advertised to the appropriate target groups using various media, training institution carried out an opinion survey before introducing new courses, courses were taught by qualified and committed instructors to ensure an above-average performance on the part of the trainees, supporting services were efficiently provided by appropriate staff, Board of Governors played an important role in ‘humanizing’ the institution by putting in place various activities relevant to its proper functioning, machines and equipment were serviceable and materials were readily available for the conduct of effective training, and discipline was implemented in the institutions through mechanisms put in place by a team of professionals under the guidance of the dean of trainees.

The measures of the institutions mentioned above were recorded and believed to bring a remarkable promoting trend in its enrolment and achievements for some time. However, all were case studies and their findings may not be applied in similar situations.

2.7.6 Lack of facilities in the enterprises

Not all enterprises can offer training for the apprentice as in the case of Norway since there were obligations imposed on them. The apprenticeship system in countries like Norway was highly organized, systematic and resembles the formal training setting. Thus, the enterprise or public institution, in general, must be approved by the country's authorities as a training organization before it conducts any kind of training.

In view of this, enterprises may be obliged to fulfill the following conditions (Cedefop, 1999): enterprise must be in a position to meet the training requirements of the curriculum for the recognized occupation concerned, qualified training manager must be appointed by the enterprise with the responsibility of instruction, it should allow the training process to be supervised by the employees' representatives and the training manager in order to check that training facilities, it should ensure the curriculum requirements and training process, it should facilitate loans and grants for the apprentices from the state educational loan fund system, it should be committed to train in one or more recognized occupations by covering the whole curriculum designed for it, its supervisors should give feedback to trainees and it should cooperate through a training office or a training circle where it is supposed to link.

These training offices and training circles are, in fact, established on the initiative of the employers' associations within the recognized occupations, but sometimes the initiative is taken by the county's vocational training committees.

On the other hand, in countries where the modern sector is underdeveloped and the size of enterprises are small, there may be insufficient enterprises to provide the capacity for structured on-job training particularly the apprenticeship training to meet the needs of the economy. It seems unrealistic to talk about the provision of quality training with such facility of these enterprises (UNESCO, 1992).

2.7.7 Poor professional capacities of supervisors

Supervisors need to acquire theoretical and practical knowledge relevant to their profession. This is due to the fact that they are expected to familiarize apprentices with the social norms and

codes of the workplace and manage the apprentices while they are at the company. Besides, it prevents drop-out rates of apprentices. In companies where there were unqualified supervisors, it was observed that the rate of drop-out was high (Kis, Hoeckel & Santiago, 2009).

Owing to this, there is an obligation on the part of supervisors to have both technical and professional skills. For instance, in Switzerland, supervisors are required to take courses of 100 learning hours covering pedagogy, law, the education system, problems with drugs and alcohol, etc. These are, in fact, courses that are thought to enrich the professional capacities of supervisors. Besides, they may not be required to look after more than two apprentices and should have a certain level of education, either certificate or diploma. All these have implications on the quality of the apprenticeship training in the enterprises (Field et al, 2008).

Along with their regular jobs in the enterprises, there is a need to provide training for supervisors. Research confirms that training of supervisors improves their capacity to supervise and train. In a research conducted in UK, it was reported that occasional supervisors who lack the relevant training tend to train on specific occupational skills rather than key social competencies such as communication and teamwork. In a similar research conducted in Australia, apprentices have emphasized the need to have high social and personal skills within their supervisors such as the capacity to deal with conflict in addition to their knowledge of their trade (Field et al, 2008).

In Germany, formal training for supervisors seems to be mandatory. Until 2003, employees who wanted to work with apprentices had to pass a national examination, preceded by optional training offered by chambers of commerce (Kis, Hoeckel & Santiago, 2009).

Low quality of workplace training may have various causes. Inadequate preparation of supervisors is likely to be one of them. Thus, it is recommended that workplace training supervisors should receive pedagogical training in order to provide high quality training to VET trainees (Kis, Hoeckel & Santiago, 2009).

Moreover, supervisors are advised to follow flexible training based on the learning preference of apprentices and delivery system to enhance apprentices' skill. However, due consideration should be placed to strategies that can be developed according to apprentices, supervisors and enterprise needs (Robertson & Wakefield, 2001; Smith, 2000).

In a research conducted in European Union countries, it was reported that supervisors were perceived as 'guardians of quality training in enterprises'. In parallel with this, professional standards and competence frameworks for in-company supervisors are established in some European countries to enhance their capacity. However, there are instance that show the provision of insufficient opportunities and incentives for their professional development. This is due to the fact that they may not have financial incentives, career prospects and higher professional status (Cedefop, 2011b).

Supervisors also play the role of mentors. A mentor, in a workplace situation, is model technical person who is expected to guide the trainee or apprentice to acquire the skills of a job. In line with this, there are two kinds of mentoring programs: Formal and Informal. As opposed to the informal mentoring program, the formal mentoring program establishes mentoring procedures and officially recognizes mentors as professional leaders in the workplaces. In general, mentoring as a system provides instruction, lessons to mentees during their apprenticeship training program. It also initiates positive work ethics and attitudes, and provides mentees with role models. For the successful implementation of the program, both mentor and mentee are also expected to establish formal relation in the workplace. However; this kind of relation and procedure are not supposed to be followed in the informal program (Hipes & Marinoni, 2005).

In the formal mentoring program, the mentor is assumed to have rich and transferable skill. Trainees or apprentices, on the other hand, have skill gaps to be filled by these mentors. When sent in the workplaces, apprentices are assigned to the mentors. Consequently, they start to imitate mentors. The mentors, on their part, help them how to do the work effectively by showing them the skills. This is not a one shot activity. Instead it continues until the apprentice masters the job. An effective workplace mentor reinforces behavioral characteristics that can

contribute to apprentices successful work experiences (Luecking, 2009; Hipes & Marinoni, 2005).

2.8 Synthesis

The literature review, in this research, helped to establish the research arguments and enabled modifications of some of the original research questions. It also helped the researcher learn more from program participants when collecting data and observing them at research sites. Thus, both theoretical and research knowledge are applied during literature reviews. The steps followed include: a) researching the history of apprenticeship training both from the global and Ethiopian perspective, b) discovering the history of apprenticeship training at global levels (De Munck, Kaplan & Soly, 2007), c) realizing that no evidence existed to confirm beginning dates of formal apprenticeship training in Ethiopia d) reaching the determination that it may have come into being with the introduction of TVET and e) identification of institutions with links to the TVET system.

The TVET system in Ethiopia began in 1994 when the New Educational and Training Policy/NETP/ was introduced. Initially, students registered in the technical and vocational training programs just after the end of grade 10. Those found ineligible to proceed to preparatory classes or those who were promoted but opted to join TVET were able to join the system. In 2002, a guideline for the implementation of apprenticeship at Enterprises was prepared by the Ministry of Education. Two years later, the TVET Proclamation was promulgated with implementation requirements throughout the country. Article 3 of the proclamation gave detailed descriptions of apprenticeship training. A strategy was then worked out (2001/2002) to enhance the implementation of TVET program. A twenty-year education sector indicative plan was prepared and translated into a series of national ESDP. The fourth ESDP (2011-2015) is being implemented as of the writing of this research proposal.

The act of accomplishing the TVET program at the global level seems to follow some predictable trends. Historically, the evolution of technical and vocational education was thought to follow two different structural traditions: the apprenticeship and the vocational school patterns. As a result, apprenticeship, with its own unique features, was practiced in the countries

which experienced industrialization processes earlier than in countries that didn't (De Munck, Kaplan & Soly, 2007).

The vocational school model, on the other hand, dates back about a hundred years. In its current development, the vocational and technical education is believed to follow four main distinct provisions: 1) the school system, 2) the Enterprise system, 3) the dual system and 4) the integrated systems, of TVET (Masri, 1994; UNESCO, 1993; Rusch&Chadsey, 1998; Cedefo, 2009a).

In line with local TVET provisions, different apprenticeship training delivery models exist in various European countries. These include a) the traditional, b) the experiential, c) the generic, d) the work process and e) the connective apprenticeship models (Guile and Griffiths (cited in Virtanen, 2008). Each of these models has its unique features. However, all of them are taken as tools that can enrich the TVET system. Other models known in most industrial countries as cooperative apprenticeship training programs (jointly with employers, labor unions, TVET institutions, and government bodies) also exist. The model requires the existence of well defined apprenticeship laws and each stakeholder of the program is expected to abide by those laws. A sample of countries from Europe, North America, Africa and Australia may be cited as examples of places where one can draw new experiences.

The apprenticeship training program in the selected countries is governed by law. The law, with coordinated efforts of partners, paves the way for implementation. Thus, each partner acts according to the law. The issue of apprenticeship training is the concern of all stakeholders instead of a government body or an institution alone. The law enables countries to establish procedures for apprenticeship training. In line with this, contracts are signed between a training Enterprise and young people. The facilities in the enterprises can be arranged for common apprenticeship training. The effort helps the countries to produce middle level manpower for both the informal and formal economy as well. It also enabled them to have a uniform national standard for middle level occupations. In particular, the German TVET system and its subsequent apprenticeship training models have received special attention. As a result, the dual system has become more popular.

The benefit of skill training in TVET system is widely recognized. To this end, globalization has made the transformation of knowledge very easy and successful. One way of responding to globalization is in the use of this opportunity to meet needs. Thus, TVET plays unique roles for the success of all aspects of development by providing skilled manpower. In terms of economic and social benefits, its contributions can be seen at micro (benefits regarding individuals), meso (benefits for Enterprise/group) and macro levels (benefits for society as a whole) (Cedefop, 2011a).

The benefits of apprenticeship training are also diverse. At the Enterprises level it is believed to help apprentices gain skill and knowledge. It is also believed to prepare employees for future jobs. Also, job satisfaction may lead apprentices to stay for a long time. Moreover, the availability of continuous employment opportunity is believed to have an effect on an apprentice's choice of the field.

Motivation is also believed to play a role in the accomplishment of given tasks. There are factors, both internal and external, that give rise to motivation. It is assumed aid the selection of an occupation. However, some research findings have shown that decisions on the selection of an occupation are influenced more by chance than by self-evaluation and information about the occupation (Gregory, 1996).

Early research results on vocational motivation have shown that interest in a given vocation starts early in childhood (Hurlock, 1981). However; various factors have been shown affect current vocational motivation levels of students. In an Australian research, for instance, career motivation, cognitive ability and socio-economic background are believed to play a major role in the vocational motivation of students (Misko, Niguyen& Saunders, 2006).

The level of vocational interest of people towards a given goal can be measured by the application of various methods of scaling. However, KGIS and SVIB are taken as the standard method (Freeman, 2006). ***The theoretical framework of the research will be elaborated in the next chapter.***

CHAPTER THREE

THEORETICAL FRAMEWORK IN THE RESEARCH

3.1 Introduction

Studies suggest some scientific explanations on how, when and where people can learn and gain knowledge. In this regard, psychologists have conveyed their major thoughts pertaining to the scientific explanations through the main learning theories which are broadly classified as behaviorism (which emphasizes on behavior depending on the environment) and cognitivism (that values the mental aspect of the human being) theories. As a result, psychologists have attached themselves to specific and more focused theories of learning. Some of these theories focus on conditioning /classical or operant/, some on cognitive, some on observational learning and others on the approach that views learning as the reorganization and reconstruction of experience. Hence, the major debate associated with the learning theory is to identify which methodology(s) can best describe this more specific area of learning (Bergh & Theron, 2006).

In order to undertake this research, the researcher considered learning theories that emphasize on the role of environmental influences. Within this framework, a child can learn by both deliberate and unintended learning experiences at home, from his/her peer group at school, at playing grounds, in the community, at the work places, etc. The child's learning is significantly shaped by the efforts of parents, teachers, friends, community leaders and others to socialize him/her in desirable ways. In everyday life, learning involves the child doing things with more experienced people-adults or older children-and carryout the activity. However, at the beginning, the child does nothing but participates through observation and listening (Coy, 1989).

Learning theories focusing on non-formal situations that emphasize on environmental influences can be helpful in the research of apprenticeship training. This is due to the fact that apprenticeship training takes place outside the classroom. More specifically, it takes place at the workplaces. In a workplace situation, the worker (master) is the ideal person who can share his/her occupational experiences to the other people. In doing so, apprenticeship can be designed

to facilitate the transfer of skill, knowledge and attitude. Its eventual result may enable people to identify specific career (Rusch & Chadsey, 1998).

Apprenticeship can be explained in terms of the environment in which it takes place. In relation to this, some of the learning theories that have implication for apprenticeship training are identified and discussed in this chapter.

3.2 Vygotsky's theory of the Zone of Proximal Development/ZPD/

Unlike Piaget, who asserts on the universal nature of human cognitive development, Vygotsky focuses on people's culture for the development of the mind. His conception of the cognitive development of people has been discussed in detail in the social development theory of learning. Vygotsky argues that people's cognitive development is the product of their continuous social interaction. Unless a person lives and interacts with the society, it will be hard for him/her to develop his cognitive ability. In doing so, people apply language as a tool to enhance their cognitive process. It is with language that people express their feelings, thoughts, experiences, etc. to others. However, the pattern of social interactions and expectations may differ from culture to culture (Bernstein, Penner, Clarke-Stewart & Roy, 2006).

Vygotsky's social development theory of learning further explains the presence of the connection between the cognitive development and guidance by others using the concept of 'Zone of Proximal Development (ZPD).' This is the term used by Vygotsky to clarify variation of task accomplishment between a learner and a skilled person. The common conception of ZPD indicates the difference between what a learner can accomplish independently and what he/she can do with the assistance of skilled person on a given task. The nature of the task can be either skill or knowledge on any topic. Vygotsky claims that the gap, which is labeled as 'Zone', is crucial since it requires experienced people to intervene in order to enhance the cognitive development of a beginner by uplifting him to the level of the assistant. The gap can be filled by applying a teaching/training strategy known as 'scaffolding'. The scaffolding process enables teachers/ trainers to access ZPD (Shaffer & Kipp, 2010).

The process of scaffolding can take place in any social situation no matter whether it is formal or non-formal. For instance, children learn culturally approved social norms, values, skills, etc. by the application of scaffolding from their parents. Similar learning opportunities can be arranged in various situations by people with rich experiences. This kind of support will be accomplished through ‘guided participation’ with the person who shows the necessary direction. Guided participation indicates the active participation along the skillful person in a socially approved way. Due to this, the way scaffolding is carried out in the society may vary and even from person to person (Shaffer & Kipp, 2010). However, Vygotsky’s theory can be criticized due to its failure to recognize individuals’ role for their own cognitive development.

Guided participation can be applied to describe the apprenticeship training process at the workplaces. As is known, workplaces are not formal learning places. However, we see people with rich work experiences guiding/teaching the novice workers. The desired results can be achieved by the application of, as Shaffer and Kipp (2010) explained it, scaffolding and through guided participation. Apprentices are, thus, expected to learn about a job from workers with rich experiences in the industries. They can do this by imitating model workers at the workplaces.

In the actual work situation, we see workers performing tasks under various job titles. As far as there is division of labor, we expect diversification of jobs to sustain. The skill, knowledge and attitude regarding a given job will continue to pass to the next generation. This can be realized through social interactions. Training or education is a means that actualize this process. The reality is not different at workplaces. The trainee and trainers enter into the social intercourses through which knowledge transmission takes place.

3.3 Bandura’s Theory of imitation

Apprenticeship program is a means of facilitating training process. This kind of training process can, in fact, be explained using Bandura’s (1977) theory of imitation or observation. The theory gives value to both the environment and the mental aspect of the human being. As a result, it has often been called a bridge between behaviorists and cognitive learning theories (Bergh & Theron, 2006). However, observation at times could result in the development of unnecessary behavior when exposed to a learning situation that may cause to develop antisocial behavior.

The theory consists of three basic components; namely, attention, retention, reproduction and motivation. Accordingly, the theory asserts that people learn much about behavior by observing others. In order to learn they should pay attention to the behavior they want to imitate. Attention may not be enough. It should be accompanied with retention in order that the observed behavior can be used in the future. The retained behavior should also be reproduced or applied to the situation that requires it. The last task can be accomplished when the person is motivated (Grieve & Mojapelo-Batka, 2005).

The application of Bandura's theory of observation can be seen at workplaces when a beginner imitates a skillful worker in a given profession. Thus, a beginning carpenter should first see how others work before he starts operating. The master, at the same time, may not be expected to apply the modern didactic principles of teaching the skills. However; the beginner can learn simply by observing him/her while doing (Coy, 1989).

The nature of learning, in the apprenticeship training process, requires the trainee to observe the skills of the master, supervisor or craftsman/craftswoman. During this process, the apprentice does not passively grasp all what he observes or listens. Instead, s/he asks questions critically: what relevance does it have to my occupation? What similarities and differences does it have with what I learned in the class? Is what I learned applicable? With what conditions and how can it be applied? How can I test it? To this end, s/he may apply her/his theoretical knowledge s/he gained in the class. Eventually, s/he masters the skills of the occupation s/he chose.

The above argument goes with the views of constructivists on learning. The constructivist view of learning is believed to stem from the assumption that knowledge can be constructed by the learner while trying to make sense of the environment s/he lives. The proponents of this view argue that knowledge is inseparable from doing. The learner is not a recipient of knowledge from the teacher but s/he can also construct knowledge. According to the constructivist view of learning, the learner's active role is decisive in acquiring knowledge. Due to this reason the learner is expected to be engaged actively in meaningful learning activity. Consequently, s/he is required to apply the 'sense of authenticity'. This means that s/he should apply the skill and

knowledge s/he gained to the context outside the classroom (McCown, Driscoll, Roop, Roop & McCown, 1999).

3.4 Contextual, situated or connected learning

We can also consider the contextual learning, situated learning, or connected learning to explain apprenticeship training (as cited in Rusch & Chadsey, 1998). In this kind of learning, students are engaged to solve real problems that require them to apply the skill and knowledge they have acquired from their schools in their field of research. The originators of the theory, Lave and Wenger (1991), argue that engaging in practice is the basic condition for the effectiveness of learning. This contrasts with most classroom learning activities which involve abstract knowledge and out of context (Lave & Wenger, 1991). In relation to this, the apprenticeship training situation requires the trainee/apprentice to learn from workplaces where the actual occupational skill practices take place. They learn it more by doing or practicing at the real work situation. The effort enables them to see the application of the theoretical learning.

Likewise, workplaces can be considered as the ideal natural context of learning (Rusch & Chadsey, 1998). Learning that takes place at the workplace gives value to the context that the learning takes place. We can thus explain apprenticeship training as a process of learning that takes place in the workplaces where the actual work performance is demonstrated. It benefits apprentices by improving their self-esteem, understanding workplace culture, creating a network for future job and exposing them to career choice.

The transition from training institutions to workplaces creates new opportunities to trainees. This can be described as change in the social environment. Before transition, trainees' social contact was limited to teachers, classmates and friends in the school. However, this social environment changes when they go to workplaces. This is a step towards adulthood life. The other opportunity is that the transition enables trainees to gain the desired skill of a job while it is being applied in its real setting (Ghee, 2005).

Skills such as dealing with clients and teamwork are typically better learned on the job. While a school setting provides an opportunity for trainees to develop further but is difficult to simulate

situations that develop such skills. A better learning environment requires up-to-date equipment for practical training. This is hard to ensure in schools because some equipment is too costly and need to be regularly renewed to keep up with rapid technological changes. Besides, workplace training facilitates conditions by permitting trainees and employers to learn about each other. Apprentices can learn about the kind of work they may want to pursue by imitating from the employers in the enterprises (Kis, Hoeckel, & Santiago, 2009).

However, the current investigation could not undertake due consideration to the kind of knowledge apprentices gain during their participation in the workplaces. In this regard, most of the literature on apprenticeship focuses on skill acquisition out of the school context. Along with this, in its modern approach, apprenticeship concentrates on the skill training in the workplaces, in industries, and with other service providers (Simeoni, 2005). Observation can also be taken as a tool to imitate and grasp the skills of masters in places where apprentices are assigned for apprenticeship training.

3.5 Career development theory

It is true that apprenticeship training can lead apprentices to identify an occupation and eventually to develop a career (Luecking, 2009). Once a person identifies his occupation, he may hold series of occupations, jobs and positions throughout his/her working life that lead him/her to develop a career (De lary,Duncan & Swarth, 2006).

This fact can be best explained using John Holland's theory (as cited in De lary,Duncan & Swarth, 2006), which is found to be more applicable. The theory bases itself on what he calls the degree of fitness between the individual and the environment characteristics. In this regard, most people can be categorized into six personality types: realistic, investigative, artistic, social, enterprising or conventional. As a result, our behavior is described by the way in which we relate ourselves to the environment. Accordingly, individuals are attracted to a particular occupation that meets their personal needs and provides them satisfaction.

The other contemporary theory that can describe career development is SCCT. This theory has grown out of Albert Bandura's social cognitive theory and attempts to address issues of culture,

gender, genetic endowment, social context and unexpected life events that can relate career-related choices. The SCCT focuses on the connection of self-efficacy, outcome expectations and personal goals that influence an individual's career choice. It differs from the majority of existing career theories in its dynamic nature. It focuses upon the role of the self-system and the individual's beliefs. It also addresses the inherent influence of the social and economic contexts toward career choice (as cited in De lary, Duncan & Swarth, 2006).

People search for environments that let them exercise their skills and abilities, express their attitudes and values, and solve problems and perform roles well. People's behavior can also be determined by the interaction between their personality and the environment they work in. Since career development theories are not static, various factors can also influence them. The attained level of development all over the world requires everyone to equip oneself in more than one occupation. Due to this, the current trend looks at the employment of people in special skills only for a certain period of time. Hence, people may be obliged to acquire more than one skill to base their life (Maree & Ebersohn, 2002).

Besides, its contribution to explain behavior in relation to the environment, the social learning theory has laid a foundation for one of the most interesting contemporary theories, the social cognitive career theory. According to this theory, once a person identifies his occupation, he may hold sequences of occupations and positions throughout his/her working life that lead him/her to career development (De lary, Duncan & Swarth, 2006). Besides, the most direct and powerful information about the world of work is drawn from actual work experience (Rusch & Chadsey, 1998).

The part of Bandura's general social cognitive theory that attracted the greatest attention in career development is the concept of self-efficacy expectations. Bandura explains the concept by attaching with individuals who have positive beliefs. In their ability to do a task, people who have positive beliefs are more successful than the ones who have doubts in their abilities.

In view of this, Bandura has identified four sources of self-efficacy information (as cited in De lary, Duncan & Swarth, 2006) that foster the development of occupation. These are the following.

- Personal performance accomplishments that refer to direct success experience when confronted with a task. We expect individuals to develop interest in tasks where they have experienced success, and to avoid activities where they have experienced failure.
- Vicarious learning refers to the learning that takes place through observation. A person observes masters whom he considers as success achievers and avoids the ones whom he considers as failures.
- Physiological arousal refers to the physiological and anxiety level of people to accomplish a task. When people become anxious and physiologically aroused, their self-efficacy becomes low and the vice versa.
- Verbal persuasion refers to the verbal encouragement provided by people. This is considered as the weakest source of self- efficacy information as compared to the others. This is due to the fact that its effect is less powerful than direct success experiences or observation of appropriate model.

In general, it can be concluded that the social learning theory has interwoven itself with the internal cognitive influence of behavior, as well as on the observation of others and the environment in which behavior occurs (Fredrickson & Nolen-Hoeksema, 2009).

This research, therefore, made connections among the motivation of trainees, the experiences of supervisors, conditions in the enterprises and the TVETCs. These connections can help us to consider the factors that hinder apprentices in gaining knowledge, skill, attitude and future career in an occupation.

These efforts also enable to investigate the factors that influence the success of the apprenticeship training program. However, the researcher did not intend to investigate the factors that affect the application of the knowledge gained through apprenticeship training since application requires more time to see its effect.

3.6 Principles and Practices of Vocationalism

Vocationalism nowadays, refers to the application of the educational system to the needs of the economic system. It is more popular by its name ‘TVET’. It is, thus, used as a tool to design policies and practices to maximize the occupational values of schools (Furlong, 2009). However, in the early 20th century, there were debates among educators regarding its role in children’s future life. Dewey argued that vocational education should be designed to meet students’ needs rather than enterprises’ demands and should prepare learners for social life instead of specific occupational roles (Hyslop, 2000).

This idea was later criticized by Snedden and Prosser (as cited by Dow, 2002), who understood that school youth need a practical education leading to a trade or vocation. It was, thus, replaced by a new thought called the ‘new vocationalism.’ It differs from the old concept of vocationalism as it gives emphasis to students’ learning specific job skills for immediate job placement arranged with enterprises. Currently the ‘new vocationalism’ perceives the student as an active learner and the system as student-centered accomplished through the collaborative efforts of industrial society and the schools. This was not, in fact, consistent with Dewey’s view of vocational education as a process of thinking leading to intellectual and social growth (Dow, 2002).

Nevertheless, Dewey’s idea of vocationalism has enabled the current TVET system to establish its unique principles and practices of TVET regarding its implementation. In line with this, country specific principles and practices are being observed in countries of the world. For instance, TVET is provided in Ethiopia based on the principle of making TVET institutions as a center for technology transfer, a system of providing comprehensive and integrated TVET, a means of encouraging stakeholders’ involvement, a way of establishing public and private partnership, and a means of adapting outcome-based approach and decentralization (MoE,2008).

At the global level vocationalism is implemented with the main principle of partnership between government and non-government organizations. The principle can be shared among its partners. Accordingly, the principle for the industries may explain them to get the organization ready for the work integrated learning, contribute to curriculum design and facilitation and support staff. The principle for university may mean relationship building, curriculum design and facilitation and having good management (Choy & Delahaye, 2009).

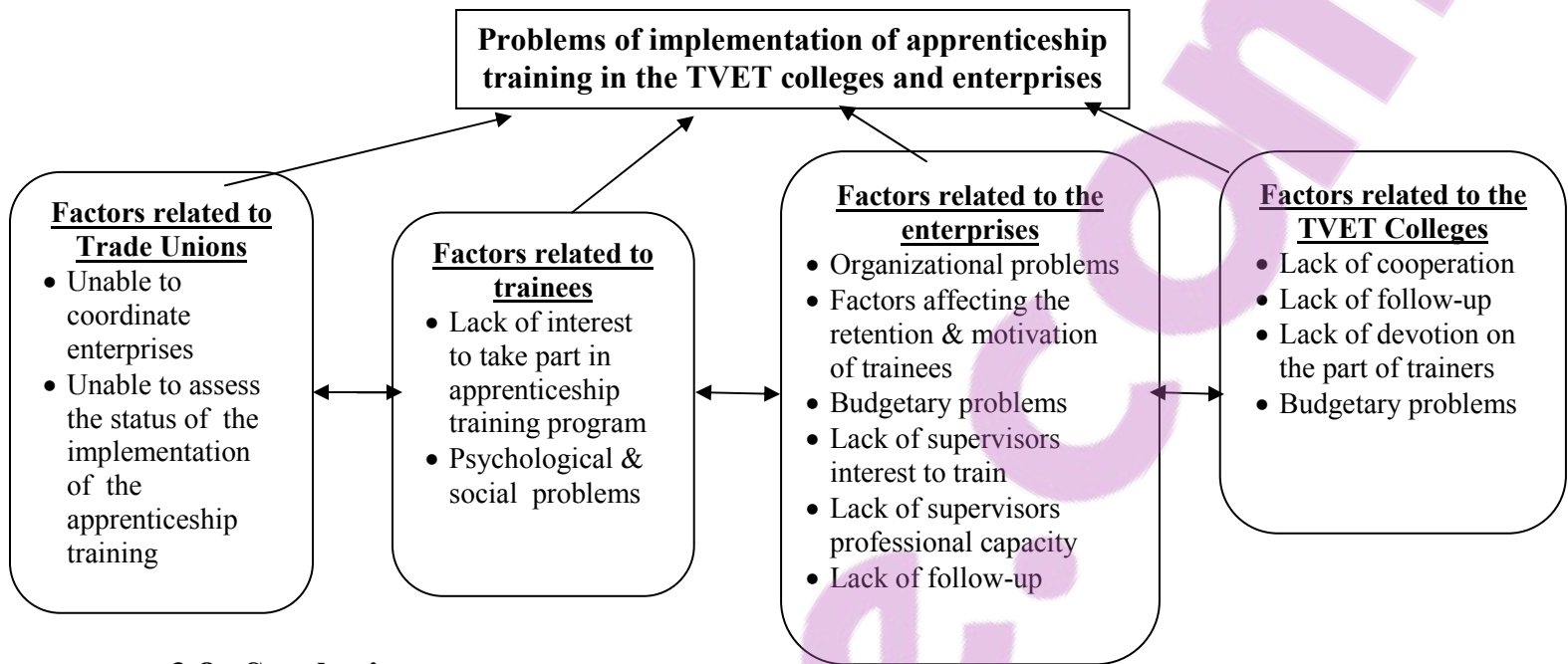
In relation to this, the current TVET practice has shown that there are different types of strategies adapted for the provisions of vocationalism. These include; school based learning, work based learning and programs that suit the needs of exceptional students (Rusch & Chadsey, 1998; Cantor, 1997).

3.7 Analytical Framework for apprenticeship training

An application or illustration of the problems of apprenticeship training is based on the theoretical statement of observational theory, Vygotsky's theory of ZPD, contextual learning theory, career development theories, the constructivist view of learning and vocationalism. The application of these theories may contain a set of auxiliary assumptions that can describe the environment and the conditions under which apprenticeship can take place. This effort may help us to explain the problems that hamper the implementation of apprenticeship training. It can, at the same time, help us for the interpretation of the research results (Skitmore & Runeson, 2006).

Based on the facts of apprenticeship training and on the factors that can affect apprentices' imitation of the supervisors, the motivation and retention of apprentices' skill during the process of apprenticeship training were thoroughly examined. The researcher views problems in apprenticeship training as a process determined by some direct forces that exert their distinctive influences on it. This is illustrated schematically as follows.

Figure 1: Theoretical model for the factors of the implementation of apprenticeship training in the TVET colleges and enterprises.



3.8 Synthesis

In order to conduct this research, the researcher has considered the learning theories that emphasize on the role of environmental influences. Within this framework, the child can learn through informal ways at home, from his/her peer group in schools, at playing grounds, in the community, etc. During this process, the child's learning is shaped by the efforts of parents, teachers, friends, community leaders and others to socialize him/her in desirable ways.

Learning theories that focus on non-formal situations emphasizing on environmental influences can be helpful in the research of apprenticeship training. This is due to the fact that apprenticeship training takes place outside the classroom. More specifically, it takes place at the workplaces. In a workplace situation, the worker (master) is the ideal person who can share his/her occupational experiences to the other people. In doing so, apprenticeship can be designed to facilitate the transfer of skill, knowledge and attitude. Its eventual result may enable people to identify specific career (Rusch & Chadsey, 1998).

One of the learning theories that has implication for apprenticeship training is Vygotsky's theory of the Zone of Proximal Development/ZPD/. The theory focuses on people's culture for the

development of the mind. In doing so, people apply language as a tool to enhance their cognitive process. The common conception of ZPD indicates the difference between what a learner/trainer can accomplish independently and what he/she can do with the assistance of skilled person/trainer on a given task by employing guided participation. Guided participation can be applied to describe the apprenticeship training process at the workplaces. As is known, we see people with rich work experiences guiding/teaching the novice workers/trainees/apprentices at the workplaces.

The other learning theory applied to explain apprenticeship program is Bandura's Theory of imitation. This theory gives value to both the environment and the mental aspect of the human being (Bergh & Theron, 2006). The application of Bandura's theory of observation can be seen when a beginner/apprentice imitates a skillful worker in a given profession at a workplaces.

The nature of learning, in the apprenticeship training process, requires the trainee to observe the skills of the master, supervisor or craftsman/craftswoman. During this process, the apprentice does not passively grasp all what he/she observes or listens. This argument goes in line with the views of constructivists on learning. Accordingly, the constructivist view of learning is believed to stem from the assumption that knowledge can be constructed by the learner while trying to make sense of the environment s/he lives. The learner is not a recipient of knowledge from the teacher but s/he can also construct knowledge. Due to this reason the apprentice is expected to be engaged actively in meaningful learning activities at the workplaces.

Similarly, the contextual learning, situated learning, or connected learning is taken to explain apprenticeship training (as cited in Rusch & Chadsey, 1998). Accordingly, students are engaged to solve real problems that require them to apply the skill and knowledge they gained from their schools in their field of research. The originators of the theory, Lave and Wenger (1991), argue that engaging in practice is the basic condition for the effectiveness of learning. In relation with this, the apprenticeship training situation requires the trainee/apprentice to learn from workplaces where the actual occupational skill practices take place. They learn it more by doing or practicing at the real work situation. The effort enables them to see the application of the theoretical learning.

The other theory taken to explain apprenticeship training is career development theory. It is true that apprenticeship training can lead apprentices to identify an occupation and eventually to develop their own career. This fact can be explained using John Holland's theory (as cited in De lary, Duncan & Swarth, 2006). The theory bases itself on what he calls the degree of fitness between the individual and the environment characteristics. As a result, our behavior is described by the way in which we relate ourselves to the environment. Accordingly, individuals are attracted to a particular occupation that meets their personal needs and provides them satisfaction.

The other contemporary theory that can describe career development is SCCT. This theory has grown out of Albert Bandura's social cognitive theory and attempts to address issues of culture, gender, genetic endowment, social context and unexpected life events that can relate career-related choices. The SCCT focuses on the connection of self-efficacy, outcome expectations and personal goals that influence an individual's career choice. It differs from the majority of existing career theories in its dynamic nature. It focuses upon the role of the self-system and the individual's beliefs. It also addresses the inherent influence of the social and economic contexts toward career choice (as cited in De lary, Duncan & Swarth, 2006).

The part of Bandura's general social cognitive theory, that attracted the greatest attention in career development is the concept of self-efficacy expectations. Bandura explains the concept by attaching with individuals who have positive beliefs. In their ability to do a task, people who have positive beliefs are more successful than the ones who have doubts in their abilities.

This research, therefore, has attempted to make connections among the motivation of trainees, the experiences of supervisors, conditions in the enterprises and the TVETCs. These connections can help us to consider the factors that hinder apprentices in gaining knowledge, skill and attitude in an occupation at the workplaces or enterprises.

These efforts also enable us to investigate the factors that influence the success of the apprenticeship training program. However, the researcher did not intend to investigate the factors

that affect the application of the knowledge gained through apprenticeship training since application requires more time to see its effect.

The application of these theories may contain a set of auxiliary assumptions that can describe the environment and the conditions of enterprises under which apprenticeship takes place. This effort may help us to explain the problems that hamper the implementation of apprenticeship training. It can, at the same time, help us for the interpretation of the research results (Skitmore & Runeson, 2006).

Based on the facts of apprenticeship training and on the factors that can affect apprentices' imitation of the supervisors, the motivation of apprentices' skill during the process of apprenticeship training have been thoroughly examined. The researcher views problems in the apprenticeship training as a process determined by some direct forces that exert their distinctive influences on it. ***Chapter four will follow focusing on the research design and methodology.***

CHAPTER FOUR

RESEARCH DESIGN AND METHODOLOGY

4.1 Introduction

The chosen design for this research falls within the interpretive paradigm in which qualitative approach is the most prominent. It was chosen due to the fact the nature of the research process mainly focuses on the investigation of the implementation of apprenticeship training process. It has tried to explain the process by asking how apprenticeship training was going on in the Addis Ababa Administrative Region. The researcher attempted to answer this question by constantly asking: who the stakeholders were? What their influence was? Etc. The aforementioned questions and others triggered the researcher to deal with them in detail using the qualitative approach.

The detailed description and explanation of the process and the influence of the people involved around the implementation of the process, in general, had required the researcher to apply the qualitative research method. Consequently, the qualitative case taken in its largest context was applied by using different data sources. The case method, in this research, enabled to develop a full understanding of the situation under the research.

Based on the research problem, the researcher has developed assumptions about knowledge - where it lies, how it can be obtained and the methods of acquiring it. Thus, the position of the researcher with regard to knowledge matched with the views of the constructivists. Accordingly, the researcher believes that human life cannot be observed by being an observant alone. Instead, it can be better understood by taking into account people's experiences, attitudes, values, norms, meanings. This can be secured by involving in the social life and by carefully observing how people construct the social environment in which they live. This kind of position requires the realization of the social life as a unique human product and the consideration of the human mind as the source of meaning. This comes into being by applying appropriate data collection instruments (Creswell & Plano Clark, 2007; Maree, 2007).

The researcher believes that facts can be discovered when trust between the researcher and the research participants is well established and maintained. In this respect, the researcher was able to establish good rapport with the participants through continuous contact. Consequently, adequate data related with people's attitudes, emotions, values, etc. were collected to address the research questions. This enabled the researcher to address the research problem in a meaningful way and to investigate it in depth and breadth.

Basically, data for the understanding of the complete picture of the problems related to the implementation of the apprenticeship training at the enterprises level were gathered from college trainers, trainees, supervisors, apprenticeship training program coordinators, TVET college deans and from the places where apprenticeship were taking place. Therefore, it was necessary to employ multiple methods of data collection tools (interview, observation, and FGD) in order to maintain the trustworthiness of the qualitative research (Maree, 2007).

As is well known, there are different kinds of qualitative research designs: conceptual studies, historical research, action research, case research, ethnography and grounded theory. Despite this fact, the case method was suitable for researching the different meanings, research sites and processes in detail (Maree, 2007). Case research enables to describe a person/s, an event, a program/s, a time/period, an incident, community/communities, a group/s, neighborhoods, organizations, process, cultures, regions, or national states (Sarantakos, 1998).

Moreover, the case method paves ground to conduct qualitative analysis by applying a particular way of collecting, organizing, and analyzing data based on the different data sources. The sole objective is, in fact, to gather comprehensive, systematic, and in-depth information about the case under research. Moreover, many educational researchers are applying the case research, and its application has recently become widely known in education (Patton, 2002; Punch, 2005).

Johnson and Christensen (2004); Vos, Strydom, Fouche, and Delpont (2011), tried to label case studies as intrinsic, instrumental and collective cases. The intrinsic case research's primary interest is in the understanding and describing of the particular cases. The second, the instrumental case research, helps the researcher to learn more about something in general. The

third, collective case research or sometimes called multiple-case design, enables the researcher to have greater insight into a research topic by researching multiple cases in the overall research. There are also other types of case studies like single or multiple case studies, developmental case studies, lived experience or phenomenological case studies, clinical case research and evaluation research that can be employed depending on the research purpose (Maree, 2007; Punch, 2005).

Despite the presence of attitudinal variations contend by researchers, a case research method is seen as being more popular in the research of diverse professions. In conjunction with this, educational researchers advise to choose more than one case when investigating a research problem that requires detail investigation. This entails different advantages (Johnson & Christensen, 2004). Firstly, a comparative type of research can be conducted in which cases are compared and contrasted by their similarities and differences. Secondly, a theory can effectively be tested by observing the results of all cases studied. Thirdly, researchers may be able to generalize the results from multiple cases than from the single ones.

Most of the time, the case research method is considered as a valid tool of inquiry when the research context is too complex for survey studies or experimental strategies, and when the researcher is interested in the structure, process and outcomes of a single unit. Besides, the case research method is believed to provide various ways of analysis since it enables the researcher to consider data from the different participants and other people who have taken a research on the issue. However, it requires a detailed description of the case to be studied (Punch, 2005).

In fact, case research is criticized for its failure on generalization owing to the fact that its focus is on single case (Maree, 2007; Punch, 2005). Yet, it enables to gain much information and understanding on specific situations. The main intention of this research is, therefore, to understand the challenges of the implementation of apprenticeship training. It has no objective of generalizing the findings to the other similar cases.

In line with this, the case method is expected to undergo through the process of the test of reliability. Unless this measure is ensured, it will be hard to ascertain its methodological efficiency. Thus, it was required to adapt strategies for testing the reliability of the case method

since it enables qualitative researchers to utilize different data collection methods (Sarantakos, 1998).

In the light of the above discussion, care has been taken when selecting the case for this research. The case research in this study was taken in within its largest context (Vos, Strydom, Fouche, & Delport, 2011). This rationale goes with the aim of this research. As stated in the statement of research problem, the aim of this research was the investigation of the implementation problems of the apprenticeship. In relation to this, various actors are involved. These are both institutions and human beings. For this reason, it seemed evident to perceive apprenticeship training process in terms of the way it was implemented by these actors. This could be realized when we pay attention to the process.

Hence, this research considered its course starting from TVET Agency, going through TVET colleges and ending at the enterprises. In this process, it considered TVET Agency, Trade Unions, colleges and enterprises as cases that can form the whole process. This was due to the fact that all the institutions mentioned were at the forefront position in the implementation of the apprenticeship training program. However, this research did not aim at comparing the factors by taking into consideration the situation in each of the above institutions. Nevertheless, it was believed that the cases involved could better explain the situation than any other means. The present case research reflects the descriptive /intrinsic case research (Vos, Strydom, Fouche, & Delport, 2011) that described, analyzed and interpreted the apprenticeship training program.

In doing so, the researcher posed questions: What picture does the implementation of the apprenticeship training program have in both public and private colleges and enterprises? What are the challenges in each of these TVET colleges and enterprises? What factors are instigating the problems of the implementation of the apprenticeship training program in public and private TVET colleges and enterprises? How do the TVET colleges and enterprises address these challenges? Etc. What kind of TVET colleges and enterprises should be selected for the research? What kind of data should be collected from these institutions to answer the research questions? What kind of data collecting instruments should be employed?

Description of the above situation can be visualized using the four sided plane figure-Diamond. At the top vertex of the Diamond, we have the TVET agency delegated with the responsibility of implementing apprenticeship training from the government. The Agency directs the colleges according to the laws set by the city council regarding apprenticeship training. It is, thus, one of the actors of the apprenticeship training in the city. On both sides of the Diamond, we have public and private TVET colleges. These TVET colleges are expected to implement the apprenticeship training according to the direction set for it. However, the implementation process of apprenticeship was supposed to differ in these two institutions due to various reasons. Thus, the situation should be studied for a better future training and grasp the experiences. At the bottom tip of the Diamond we have enterprises. These are the institutions where the actual apprenticeship training is assumed to be implemented. In these institutions, both the public and private colleges send their trainees for the apprenticeship training program. They could be considered as common end places for both public and private colleges.

The above description of the case in this research is elaborated using the following diamond shape figure.

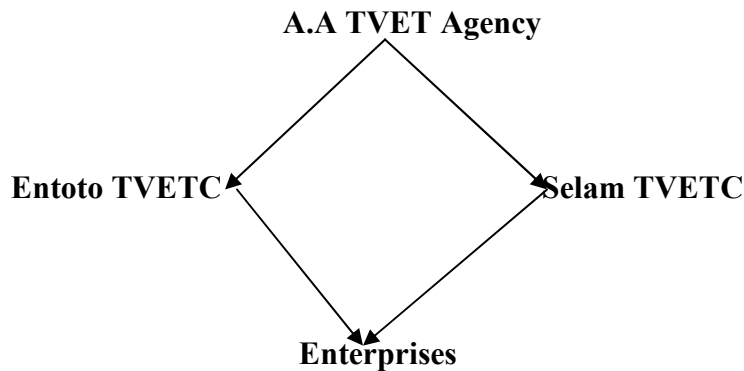


Figure 2: Diagrammatical description of the case in the research

Based on the above facts, the researcher selected the Agency, TVET Colleges/one governmental TVET/Entoto/ and another non-governmental TVET/Selam/ college/ and three Enterprises. The colleges were chosen due to their performance in TVET training delivery and were labeled as high ranking colleges by the Agency. The other three enterprises; namely, MMEE, ACBTSE and HMMBI were selected since they were the hosting institutions for apprentices sent from the above two colleges. It is believed that the above different settings could clearly explain the true

nature of the implementation problem. It was also assumed to show the bottlenecks of the implementation of the apprenticeship training in the city. It could, at the same time, pave ground to grasp experiences for a future apprenticeship program design.

4.2 The research design

A research design, in general, indicates the plan that the researcher uses to answer the research questions successfully (Kumar, 2005). However, there is no uniform research design applicable to all qualitative strategies (phenomenology, comparative, evaluation, ethnography, grounded theory, case research and content analysis). Different qualitative strategies follow different designs. Besides, there are differences among qualitative researchers regarding the concept of research design (Vos, Strydom, Fouche, & Delpont, 2011). But, the researcher in this research preferred to use ‘research design’ as it is more popular in both quantitative and qualitative research.

In doing this research, as is depicted in 4.1 above, the researcher reflected the position of constructivism. Thus, the researcher held ontological position that reality is not something that exists outside. Instead, it can be known by the people who are in it. He also believes that knowledge can be constructed (epistemological position) through the active involvement of people in the process.

The description of the implementation problems of the apprenticeship training was made by the use of multiple data sources and techniques of data gathering processes: interviews, FGD, and observation. In line with this process, the researcher has tried to secure the participation of the people selected for the research. The design normally contains the logical sequence in which the research is to be carried out as well as the elements of the research, and its methods of data collection and analysis. The design has enabled the researcher to describe the implementation problems of the apprenticeship training in detail.

4.2.1 Instruments of data collection

The data collection instruments measured the main research questions posed in the research. Due to this reason, the researcher developed the instruments to measure behaviors on the part of the

college trainers, trainees, supervisors, apprenticeship training program coordinators, TVET college deans. He also paid attention to the setting where the apprenticeship took place. Accordingly, the following data collection instruments were employed:

- Unstructured/structured interviews
- Observation to assess the enterprises
- Focus Group Discussions

The above types of instruments were selected, by and large, guided by the nature of the data. This was due to the fact that the nature of the data required from college trainers, trainees, supervisors, program coordinators, TVET college deans was different from one another. This was due to the fact that each of them has different views on the issue under study. Accordingly, the data collected from key informants (college apprenticeship training coordinators, trainers, trainees and supervisors) were detailed and very elaborative, pertaining to the research problem at hand.

There is no, in fact, hard and fast rule that would be applied to select what kind of instrument to collect the data in order to solve the research problem. However, case research researchers advise to rely on any data that will help understand the case and answer the research questions (Johnson and Christensen, 2004). Thus, the researcher has employed the following data collection instruments.

4.2.1.1 Observation

Information on the training process could be best obtained through observations of the particular aspects of the training process: how it was organized at the enterprises and where trainees were assigned for apprenticeship. The data collected in this way consisted of the detailed descriptions the training process and the way it was organized. More specifically, the researcher instructed the observers (trained apprentices) to concentrate on how, when and where supervisors train apprentices.

During the observation process, the apprentices had the opportunity to observe the situations in the enterprises they were assigned for the apprenticeship training. For the collection of this kind

of data, it was believed to apply a structured approach to observations (see the checklist from Annexure 9) so as to avoid observations that are disorganized and biased

These structured observations have been employed in the formal and strictly organized procedures with a set of well-defined observation categories that were subjected to a high level of control. To control the objectivity of the observation activity, the researcher employed three observers and compared the results. Any deviation of rating was treated differently by raising different questions.

4.2.1.2 Interview

Qualitative researchers often use open-ended questions to get qualitative data and to allow for follow up questions. This enables them to obtain in-depth information about participants' thoughts, beliefs, knowledge, reasoning, motivations, and feelings about the issue under research (Johnson & Christensen, 2004).

By the same token, information on barriers to apprenticeship training implementation was obtained through open-ended interviews with the college trainers, trainees, supervisors, program coordinators, TVET college deans (see the interview formats from Annexure 1-8).The interviewer (the researcher himself) held the actual interview after the questions/topics were provided to the interviewees two days prior to the interview session. This was due to the fact that interviewees would require ample time to better prepare themselves on the questions/topics of interview.

Furthermore, an open-ended interview was conducted in order to explore the views, beliefs, knowledge, reasoning and ideas of college academic deans, apprenticeship coordinators (in colleges and TVET agency), and apprentices or trainees, college trainers regarding the implementation of the apprenticeship training. The researcher thus based the investigation of the problem by employing more than one informant. The interviewer was kept to the interviewees on track by bringing them back when they deviated from the topic and by seeking detailed information on the problem.

The objective of the interview and the information needed was made clear to each interviewee before the actual interview program took place. To achieve this objective, much time was taken to collect detailed information from each interviewee. In fact, the size of the interview depended on what and why the researcher wanted to find out and the resources the researcher had for the research.

4.2.1.3 Focus Group Discussion (FGD)

Focus Group Discussions (FGD) were also employed for collecting information on apprentices' views of the apprenticeship program. Thus, using purposeful sampling technique, apprentices who took part in the apprenticeship training program were chosen as participants of the Focus Group Discussion. This instrument was mainly chosen on the basis of the widely available literature and the Vygotskian perspective that the very practice of anybody in any discipline cannot be understood apart from the thought process of the practitioners and with FGD this can be easily revealed (Au, 1990). To this end, FGDs (a total of two groups one for each college) were held with six apprentices comprised from both TVET colleges.

The Focus Group Discussions could be used to complement the other methods of data collection instruments (Johnson and Christensen, 2004). Thus, it was purposely employed to harmonize the data obtained by the other tools. The researcher led the discussions of apprentices to examine how the group members think and feel about the implementation process in the enterprises.

Each focus group was composed of equal number of both sexes to gather the kind of information related to the aim of this research. Attention was paid to make sure that everyone has involved in the discussion. The researcher/moderator/ did not allow a few apprentices to dominate the discussion. Care has been taken to make the particular topic/question exhaustive. The group discussions were recorded using tape recorder with the consent of the group members. Transcripts were prepared to capture what group members said with regard to the research questions. Finally, the themes of the discussion from each group discussion were extracted.

4.3 Sampling procedure

It may seem difficult to apply the probability sampling procedure in qualitative research. In fact, many reasons can be attributed to this fact (Marshall, 1996). First, the application of true sample procedure is impossible since the true characteristics of the whole population are difficult to know when applying complex qualitative research. Secondly, the qualitative research focuses mainly on the values, attitudes, beliefs, emotions, aspirations, etc of the people. Obviously, these characteristics may not be distributed evenly within the population. Moreover, people with rich experiences are the sources of data in the qualitative research that may not be selected if the random sampling procedure is applied on equal chance. Thus, the randomization sampling technique is inapplicable in the qualitative research.

As a result, the sampling procedure appropriate in the qualitative research is the one that can properly answer the research questions (Marshall, 1996). Due to this reason, the issue of sample size is not much concern in the qualitative research. However, the number of participants required in the research will become clear when the research process continues. Meanwhile, new categories, themes or explanations at one time end (saturation of data will be observed) may emerge from the data. This process necessitates the application of flexible research design (in sampling, in collection, in analysis and in the interpretation of data) in the qualitative research.

Owing to the preceding discussion, the sample for this research was selected based on the researcher's judgment on who could provide data on the research questions set. Due to this reason, participants who were thought to have rich experience and direct link with the implementation of the apprenticeship training program in all institutions (Addis Ababa TVET Agency, TVET colleges and Enterprises) were selected using purposeful sampling technique. Consequently, interviews were conducted with each of these participants with varied time lengths. In fact, more time was spent with key informants who are believed to have deeper understanding and experience about apprenticeship training.

4.3.1 Research participants and the sampling procedure

The participants of this research were college leaders, apprenticeship training coordinators (both at the TVET Agency and TVET colleges), and college trainers, supervisors and apprentices. Basically, the sampling process in the qualitative research is purposeful. The researcher intentionally selects the participants that he thinks can produce information on the topic under research (Leedy & Ormrod, 2010). Moreover, the researcher selects information rich cases for the research in depth without the need to generalize it to all the other similar cases (McMillan & Schumacher, 2010).

Accordingly, supervisors in the enterprises were chosen on the basis of the experience they acquired in the training of apprentices (from both public and private colleges) during the previous years. Based on the selected three enterprises, all supervisors who were engaged in the apprenticeship training were taken for the research. They were selected due to their rich experiences in conducting the apprenticeship training in their respective enterprises.

In addition; using the purposive sampling technique, college leaders, college apprenticeship training coordinators and college trainers were selected for the unstructured interview schedule from Entoto and Selam TVET colleges. These groups of participants were chosen since all of them, either directly or indirectly, were involved in the implementation of the apprenticeship training in the colleges.

By applying the same method of selecting the research participants, apprenticeship training coordinator, M and E expert, and the outcome based training experts were also selected from the Addis Ababa TVET Agency. This was due to the fact that these participants were thought to provide rich and detailed information on the problem under research.

Criteria were set on the apprentices assigned at the enterprises. Accordingly, apprentices who registered and completed in campus training by the time when the data was scheduled to be collected were chosen for this research. This was, in fact, done with the assistance of the TVETC vocational counselors since they were responsible for the assignment of apprentices at the enterprises. Accordingly, apprentices from both private and public colleges and enterprises were

selected for this purpose. In line with this, key informants (college apprenticeship training coordinators, trainers, trainees and supervisors) were chosen from colleges and enterprises due their rich experience on the research problem.

4.3.2 Data collection procedures

The researcher in this research has tried to research the problem by posing appropriate research questions. Obviously, the research questions were related with the research purpose and the sub-research questions were in turn related with the main research question. The sub-research questions carefully depicted how the apprenticeship training program was being implemented. Thus, the researcher examined the apprentices' motivation, the process of skill acquisition, the way trainers follow them, how they imitate the supervisors, what professional ethics supervisors have, the way training facilities/resources were organized and how colleges and enterprises address the implementation problems of apprenticeship training.

In order to see the issues in detail, appropriate data collection tools were employed in the research. In relation to this, the researcher believes that the answers to the above questions were constructed in detail and administered using the right tools to the supervisors in the enterprises, college trainers, the apprentices from both TVET Colleges, the apprenticeship training coordinating experts from both TVET Colleges, the colleges deans/leaders, and the apprenticeship training coordinators at the TVET Agency level. However, in deciding the best sources for information, the researcher needed to answer three questions:

- What source was likely to provide the most accurate information?
- How reliable was the information collected?
- Which source was the least costly and least time consuming?
- Was collecting information from a particular source pose burden?

The data collection procedure to the above mentioned people was used to ascertain whether the apprenticeship training program was taking place properly or not. The researcher sought the cooperation of all these to obtain their responses, or develop a collaboration that could support the validity of the research findings. This was ensured by discussing with all the participants

prior to the actual data collection process. Also, the researcher tried to communicate with the administrators in each institution by letters (see the content of the letter from Annexure 17 - 22).

4.4 Data analysis

The analysis in this research was made based on the nature of the tools employed in collecting the data. The data collected were commonly categorized as non-documents. Hence, it seemed important to present the details of the analysis procedure as follows:

4.4.1 The analysis of the collected data

Theoretically there are different ways of understanding and interpreting qualitative data. This is due to the fact that qualitative research deals with the social life that has wider diversity (Punch, 2005). Regarding the analysis of cases, each case was first examined in terms of the research purpose. Differences and similarities of cases were examined later on. Consequently, questions were constantly raised to identify factors that contributed for their differences and similarities. The final report was written to present a rich and holistic description of the case (Johnson & Christensen, 2004).

In this research, a variety of data, pertaining to the research problem, were collected using Focus Group Discussion (FGD), interview, and observation, too. Detailed description, when found necessary, with regard to the participants' age, sex, occupation and educational background was made.

Before the actual analysis took place, the data collected using the above tools were organized. Thus, when deemed necessary, the researcher gave number to each of the participants of the data source. The data from each source was also kept in different set; for instance, data from FGD remained separate by some identifying characteristics. The other data from the same source were also organized in the same way and put in the same folder. After organizing the data in this way, the next step was to let each separate folder undergo the process of the following three distinct steps (Punch, 2005);

- ❖ **Data reduction:** The data collected from each interviewee was put under separate table for editing. This process was applied across all interview transcripts. Its aim was to code the data based on the themes.
- ❖ **Data display:** It helped to organize the bulk of information in each table to bring under one summary table.
- ❖ **Drawing and verifying conclusions:** It assisted the researcher to interpret the data based on the above two steps.

By applying the above three steps, all the data obtained from each data source were transcribed in English language. But, when we transcribe the interview document, it was found necessary to send it to the interviewees for comment if there was any mistake while recording. All interview texts which were finally collected from each interviewee underwent the process of segmenting, and coding (Johnson & Christensen, 2004). Thus, during the coding process the researcher read the interview text of each interviewee from each respondent line by line and raised questions related to the research questions. By doing so, he determined the themes, related with the research questions, from each interview transcript. Finally, he has shown the themes using tables.

In the coding process, the researcher assigned words, phrases or descriptive words for the interview text of each interviewee. Coding was not done by the researcher alone so as to increase its credibility. It was also done by other colleagues who were thought to have knowledge in qualitative research. Prior to the final category, which was similar to coding, the researcher developed names that represented the content of the segments of the data. Eventually, the views, experiences, knowledge, etc. of the participants on the questions were interpreted.

Interpretation of the data was made based on the research questions set. When there appeared possible contradictions and some conflicting themes that seemed challenging to the researcher, he tried to make his own perspective and understanding to make sense out of these. In line with this, additional data were collected from college deans to verify or fill the gap of some of the incomplete data during the process of analysis.

4.4.2 Trustworthiness of the Research Findings

The trustworthiness of the findings in this research has been maintained by employing different data collection tools. Lincoln and Guba (1985) (as cited in Maykut & Morehouse, 2000); Marshall and Rossman (2011) advise the use of the following research process in order to maintain the trustworthiness of the qualitative research method.

1. Applying multiple methods of data collection

The application of various methods in data collection enables the researcher to understand the research problem in detail. Eventually, the effort enables to assemble the themes from observation, interview, and documents. Besides, it increases the credibility of the findings. As can be understood from the above discussions, diverse data collection tools were employed in this research to maintain its credibility.

2. Building an audit trail

The original interview and observation transcripts together with the document and the analysis that follows all contribute to audit trail. The way the research is done, from the beginning to the end, can lead people to follow the same research path. In this research, this process was constantly presented to colleagues periodically. Consequently, questions were raised to minimize biases.

3. Asking research participants

It is advised to ask the research participants to check what is recorded by the researcher before any of the documents is published. Thus, in this research, the original interview (including FGD) transcripts were sent to the participants to check the data.

It is true that the analysis in case research does not lead to the generalization to a larger population as it is common in the quantitative research. However, in case studies there are some kinds of generalizations. As Simons (2009) explained, the generalizations in case studies can be classified as cross case (researching across several cases and identifying common themes), concept (concept generalization even when the specific instance is different), process (the transferability of the process even if the cases are different) and situated (connectedness to the

situation related with the first case) generalization. In this research, the analysis in each case helped to identify common themes that could exist across all cases chosen. Its implication has enabled to identify the factors that counteract the smooth implementation of the apprenticeship training program in the Addis Ababa city.

After identifying the themes in each case, major similarities and differences of the factors of the problems of the implementation of apprenticeship training, in both Entoto and Selam TVET were categorized. The approach had, thus, the power to reach a conclusion based on these similarities and differences of factors. This kind of approach has an implication on the applicability of the findings to policy and practice settings (Simons, 2009).

The research report was prepared based on the synthesis of the findings of the views of all the participants of the research on the implementation problems of apprenticeship training. In fact, diversity in the reporting of qualitative research is common today. As Johnson and Christensen (2004) reported, there are many non-traditional and creative styles that are sometimes used by qualitative researchers. Thus, the researcher did not adhere to the style / format used in the quantitative approach when preparing the report. The results of the analyses answered the research questions that were affecting the implementation of the apprenticeship training at the enterprise level.

The researcher believes that the results of the research are useful in generating ideas for the successful implementation of apprenticeship training at the enterprises in the Addis Ababa Administrative Region. The report is also thought to be useful for policy makers to set policy statements and to effectively implement the apprenticeship training program in the Addis Ababa Administrative Region in the future.

4.5 Ethical issues

It was mandatory to follow the guidelines for research with humans (Johnson & Christensen, 2004; Simons, 2009). Accordingly, the research participants in this research gave their informed consent prior to seeking their responses. The researcher did this by requesting permission from each public or private college deans, enterprise supervisors and TVET college apprenticeship

coordinators, college trainer and trainees through letters (see the content of the letters in Annexure 17-22).

The researcher also tried to establish good relationship with all the interviewees and people selected in the research by making himself clear where he came from, why he decided to conduct the research, why he chose the interviewees selected in the research, etc. It was not necessary to make use of deception in the form of withholding information because if the true purpose of the research was not revealed it would severely affect the result of the research (Johnson & Christensen, 2004).

Finally, their assent was obtained after being informed of the features of the research whether they could participate in the research or not. This was achieved by discussing with them prior to using any of the data gathering instruments. Even after collecting the data the interview transcript was sent back to the interviewees for comment since it was assumed that mistakes might have appeared while recording.

The cooperation of the Agency, the college and the enterprise administrators was vital in this research. For that reason the researcher required additional consent from these groups. The same strategy was applied in order to allow the researcher to contact the research participants.

The researcher also arranged the interview and the Focus Group Discussion without affecting or with the consent of each informant and interviewee. The participants' freedom of withdrawal at any time during the process of the discussion was ensured by telling them so. This enabled them not to feel pressured in participating (Johnson & Christensen, 2004). During the interview process the researcher recorded the interview using a tape recorder with the permission of all interviewees. The researcher also asked permission from the coordinators to take and attach any of the important photographs and documents with the research report.

For the sake of anonymity (since the identity of the participant should not be known) and confidentiality (the participants' identity was not revealed), the researcher used pseudonyms of the participants in the research.

4.6 Synthesis

A research design represents the researcher's efforts to provide adequate answer to the study's fundamental questions (Kumar, 2005). The purpose of this section is to describe the research problems in detail through qualitative approaches and offer an account of the different data sources the study had to rely upon. It is the conviction of the researcher that learning abilities in humans cannot be understood through observation alone. It can be better understood by taking into consideration people's experiences, attitudes, values, norms, meanings (Creswell & Plano Clark, 2007; Maree, 2007) through appropriate data collection instruments and ethical approaches (such as seeking informed consent, not to make use of deception, obtaining assent, requiring additional consent when necessary and ensuring participants' freedom of withdrawal). In regard to data sources, information had been gathered from college trainers, trainees, supervisors, apprenticeship training program coordinators, TVET college deans and from the Enterprises where the actual apprenticeships took place. Multiple data collection tools (interview, observation, and FGD) were applied since the use of diverse data collection methods is believed to enhance the trustworthiness of qualitative research (Maree, 2007) within its largest context (Vos, Strydom, Fouche, & Delpont, 2011). Processes beginning with TVET Agency to TVET colleges and ending with the enterprises were considered. More specifically the study considered TVET Agency, Trade Unions, colleges and Enterprises as individual cases that can constitute the whole. All the institutions mentioned were at the forefront of implementation of the apprenticeship training program.

The chosen samples include TVET Agency, TVET Colleges - governmental/public - TVET/Entoto/, a non-governmental TVET –Selam college - and three enterprises (two governmental and one non-governmental). The colleges were chosen due to their performance in TVET training delivery and were labeled as high ranking colleges by the Agency. The other three enterprises; namely, MMEE, ACBTSE and HMMBI were selected due to their status as hosts to apprentices sent from the above colleges.

The sampling technique for the qualitative research is purposive sampling. In this method, the researcher intentionally selects the participants that he thinks can produce information on the

topic under research (Leedy & Ormrod, 2010). Moreover, the researcher selects information rich cases for in-depth analysis without the need to generalize (McMillan & Schumacher, 2010). The selected participants are thought to have rich experience and direct links with the implementation of the apprenticeship training program in all institutions (Addis Ababa TVET Agency, TVET colleges and Enterprises). Supervisors in the enterprises were chosen on the basis of the experience they acquired in the training of apprentices (from both public and private colleges) in previous years. Three enterprises were chosen with the result that all supervisors who were engaged in the apprenticeship training are included in this research. They were selected due to their rich experiences in conducting the apprenticeship training in their respective enterprises. Moreover, college leaders, college apprenticeship training coordinators and college trainers were selected for the unstructured interview schedule from Entoto and Selam TVET colleges due to their direct (or indirect) involvement in the implementation of apprenticeship training in the colleges. The researcher communicated with the administrators in each institution through letters ahead of time.

Following the data collection, the research analysis was made based on the nature of the tools employed in collecting the data. The data collected were commonly categorized as non-documents. The analysis followed the procedure that should be applied to non-document data. In doing so, each case was first examined in terms of the research purpose. Differences and similarities of responses were examined later on. Consequently, questions were constantly raised to identify factors that contributed toward their differences and similarities. The final report was written to present a rich and holistic description of the case (Johnson & Christensen, 2004).

Prior to the actual analysis, the data collected using the above tools was organized. Thus, the researcher gave number to each of the participants of the data source. The data from each source was kept in different set; for instance, data from FGD remained separate by some identifying characteristics. The other data from the same source were also organized in the same way and put in the same folder. After organizing the data in this way, the next step was to let each separate folder undergo the process of the following three distinct steps (Punch, 2005);

- ❖ **Data reduction:** The data collected from each interviewee was put under separate table for editing. This process was applied across all interview transcripts. Its aim was to code the data based on the themes.
- ❖ **Data display:** It helped to organize the bulk of information in each table to bring under one summary table.
- ❖ **Drawing and verifying conclusions:** It assisted the researcher to interpret the data based on the above two steps.

By applying the above three steps, all the data obtained from each source were translated into English and sent to the interviewees for comment. All interview texts were, finally, collected from each interviewee for segmenting, and coding (Johnson & Christensen, 2004). The interview texts were then read (for each interviewee) line by line. The coding/with the sole aim of identifying the themes/ process involved colleagues who were thought to have knowledge in qualitative research. Finally the views, experiences, knowledge, etc. of the participants were interpreted. Interpretation of data was based on the research questions. Additional data were gathered to verify accuracy of responses or fill data gaps. The final report was prepared based on the synthesis of the views of all participants of the research on the implementation problems of apprenticeship training. In the following chapter on *data analysis and interpretation, I present the analysis, interpretation and findings of the study.*

CHAPTER FIVE

DATA ANALYSIS AND INTERPRETATION

5.1 Introduction

In order to comply with the evidences that could affect the implementation of apprenticeship training program, this research paid attention to the external and internal conditions surrounding the TVET Colleges. The basic assumption was that apprenticeship training was a shared-responsibility of various factors that could not be accomplished by a single body alone. It rather requires an active involvement of all actors which could be categorized as external and internal.

In this research, these factors were explored within the TVET Colleges and outside the TVET Colleges. This was done to answer the research questions posed in chapter one. These were:

- How motivated were the apprentices to complete their apprenticeship training in Technical and Vocational and Training Colleges in the Addis Ababa Administrative Region?
- How were the enterprises organized in providing apprenticeship training?
- How did enterprises and Technical and Vocational Educational and Training colleges address the challenges encountered by apprentices?
- To what extent did professional qualities of supervisors in the enterprises influence the training of apprentices?
- What kinds of skills were provided to apprentices in the enterprises?

To answer the above mentioned research questions, the researcher categorized the data broadly as; the ones obtained from actors of the apprenticeship training and the ones gathered regarding enterprises' organizational facilities. In doing so, the researcher investigated the role each actor played in influencing the program in detail. Accordingly, in researching the influence of the forces in the colleges, it was found necessary to see all the people who came together around the program: the dean/leader, the apprenticeship training coordinator, trainer and the apprentice himself or herself.

Similarly, the external influencing factors were mentioned as apprenticeship training coordinators at the Addis Ababa TVET Agency, the supervisors at the enterprises where the actual apprenticeship training program was assumed to take place. In the following part of the research, the views of the above mentioned participants were organized and analyzed separately. Besides, the enterprises' facilities were observed using checklists. This was done due to the fact that facilities can exert influence on the implementation of apprenticeship training.

In relation to this, it seems necessary to describe the situation in order to provide a clear picture of the area where the actual research took place. Description of what was going on, what the setting looks like, what the people involved were doing, and so on has the power to convey clear message and can enhance communication (Corbin & Strauss, 2008). In view of this, each of the settings where the research took place was briefly described in this research report under chapter one (see sub-section 1.10).

5.2 General consideration

While contacting with each of the above participants, the researcher made himself clear by introducing his name and explaining the purpose of the research. In doing so, he succeeded in obtaining their cooperation. Consequently, he obtained their consent and held an interview with each of the interviewees. In fact, before the researcher held the actual interview, he tried to explain the purpose of the interview and its outcomes as well as the procedure he applied to choose them for the interview. The researcher also made clear the time they could spare and the ethical obligations that should be followed.

After the researcher had provided the basic information, he arranged programs to proceed with the interview. Lastly, the formal interview session took place without serious problem. In fact, the researcher faced minor problems regarding the interview session that was planned to be held at the trade Unions- both at the federal and Addis Ababa regional level. This was due to the fact that the Trade Unions seemed to play passive role in this regard. Some of these factors acting against the expected roles were discussed under the 'interpretation section' of this research report.

Similar problem was evident in obtaining official performance reports from the Agency, the colleges and enterprises. The administrations in all the above institutions were hesitant to provide the reports. Finally, the researcher planned to collect more data from the other sources.

Regarding the formal interview session, the researcher gave copies of the interview formats to each interviewee two days earlier. At the end, a series of interview session were held with the participants and the interview transcripts were organized using tables.

While organizing and analyzing the data, the researcher applied the following three successive stages (Punch, 2005); namely, coding (built by taking the themes), summarizing the codes (using summary tables that have implications for the research problems) and lastly interpreting the data. This procedure was applied as the researcher believes these steps could meet the purpose of the research. Indeed there was no one and strict method to be applied in qualitative data analysis. Punch asserts this fact as:

“...there is no single methodological frame work or prescription for the analysis of qualitative data.”(Punch 2005:196).

Similar views were reflected by the other scholars in the field (Corbin & Strauss, 2008; Simons, 2009; Maree, 2007). However, the application of the above three steps are described briefly as follows.

A/ The coding process: The coding process in this research took place after the interview transcript was put in separate tables. Accordingly, the researcher tried to go critically through each interview transcript obtained from each interviewee. In doing this, the researcher tried to assign words and phrases that were thought to be the themes of the interview transcript. During the process of coding, the researcher put a word or phrase/phrases against the information to identify the codes.

B/ The process of summarizing/displaying the codes: This process came after the coding process was completed. The researcher, at this stage brought all the codes under one table and

tried to show which of the implementation problems of apprenticeship training program were mentioned by each research participant.

C/ Interpretation of the data: The researcher interpreted each of the identified problems, in relation to their power of influence, on the implementation of apprenticeship training program. In line with this, their implication for policy intervention was also analyzed. The foregoing discussions followed the application of each of the above procedures step by step.

5.3 The coding process

The coding process in this research paid attention to each of the interview transcripts obtained from the interviewees and the observation process. Each interview transcript was made to pass through critical reading process. The process was preceded by brief description of the situation where the data was located. The researcher believed that description of the situation enabled to get clear image of the situation where the research took place. The interview transcripts obtained from experts at the Agency, college leaders, colleges' apprenticeship training coordinators, TVET trainers, supervisors at the enterprises, apprentices and observation were organized in three tables (see Annexure 10,11 and 12).

5.3.1 Data generated from an interview with an outcome based training expert at the TVET Agency

During the time of this research, no one could come across the official organizational structure of the Agency. The reason could be attributed to the beginning of the implementation of a new civil service system in the Agency-BPR. However, inference was made by the researcher from what was operating practically in the agency. The Agency had thus one General Director and one Vice Director. There were five Core processes (a status equal to department) accountable to the General Director (three of them were accountable to him) and the Vice Director (two of them were accountable to him). Accordingly, the Outcome Based Training Core Process was organized under the Vice Director. There were four experts in the Outcome Based Training Core Process. The Core Process/Directorate was delegated to facilitate the implementation of apprenticeship training in the enterprises of the City. For the realization of this objective, it was expected to work closely with the TVET colleges and the enterprises.

It seemed logical to present some questions, related to the implementation of apprenticeship training to the outcome based training experts. The researcher conducted a formal interview session with two experts who had various job positions in the Core Process. These experts had long services in the Agency even before it was established. They were thought to have clear picture of the process of apprenticeship training that was going on in the City. Hence, the researcher conducted the interview with these experts.

For the sake of anonymity, the identity of these experts was not identified in the research. However, the questions (see Annexure 1-3) presented and their responses were depicted in three tables (see Annexure 10 table 1-3). The researcher requested to record their responses. But both of them refused the request. Consequently, the researcher accepted the interviewees' rights and conducted the interview without employing sound recorder. Though the researcher asked each question in English, the interviewees were told to respond in Amharic, assuming each interviewee could provide elaborated answers when asked and responded in mother tongue.

All the data obtained from each interviewee were eventually transcribed in English and passed through the process of editing. Following this, the researcher tried to put all the data in separate tables under the name of each interview participant. Accordingly, it started from the participants at the Agency and went through until it reached the apprentices or trainees.

Meanwhile, the researcher tried to read each statement in the interview transcript critically. A coding system, using a word or phrase/phrases, was employed in each table under the column heading 'code.' Table1 (see Annexure 10) shows the data obtained from an outcome based training experts and the coding system it has undergone through.

5.3.2 Data generated from an interview with apprenticeship training coordinating expert at TVET Agency

The other interview session was held with an expert who was assigned to follow the implementation of the apprenticeship training program at the Agency level. He has been working with the same job title since the Agency came into being (even when it was under A.A Education

Bureau). He was in charge of the implementation of the apprenticeship training program in both public and private TVET colleges. He was accountable to an Outcome Based Training Core Process.

The researcher believed that the expert had a lot to share on apprenticeship training program of the city. Besides, the expert took part in the survey research conducted by the Agency. This created the interviewee the opportunity to see the implementation problems in-depth. With all these assumptions, the researcher conducted the formal interview session (see the question in Annexure 2) with the expert. The researcher requested the expert to record his response but he refused. As a result, he held an ordinary (without the tape recorder) interview session with him. Table 2 (see Annexure 10) shows the data obtained from an outcome based training expert.

5.3.3 Data generated from an interview with monitoring and evaluation expert at the TVET Agency

The Agency had a Monitoring and Evaluation sub-section which has began operational in the Agency since September 2011. During the research, it was at its infant stage and had the status of support sub-process. It was led by an expert with a job title ‘Support Sub-process Owner.’ There were three experts assigned at this department when this research was conducted. This sub-process was expected to monitor and evaluate the implementation of the overall duties and responsibilities of the Agency across all TVET sub-city administration offices organized under the Agency.

Impliedly, it had a stake on the implementation of apprenticeship training in all TVET sub-city administration offices. This was because the coordination of apprenticeship training was delegated to the Agency by the City Council. This fact is clearly stated in the proclamation (Article 9(9)) establishing the TVET Agency.

In line with this, some questions, pertaining to the implementation of apprenticeship training, were presented to the expert employed in this sub-process department. The aim of presenting these questions was to know the status of the implementation and the challenges of the ‘practical on-job training’ or apprenticeship training that was going on in the City.

The researcher conducted the interview after he had sought the cooperation of the expert. In fact, before conducting the interview, he requested the interviewee's permission to record his response. As a result, he obtained his permission and conducted the interview in English using tape recorder. The questions (see Annexure 3) presented to him and his responses are depicted in the table 3 (see Annexure 10).

5.3.4 Data generated from an interview with the selected TVET College leaders

It is true that college leaders are one of the most important figures on the training scene in every TVET college as they set the direction according to the laws and policies in the sector. Both the training and non-training activity of a given college cannot be out of their sight.

It was assumed that TVET leaders had general views of the overall activities taking place in the colleges where they were assigned. Led by these assumptions, the researcher presented some questions (see Annexure 4) related to apprenticeship training program to the college leaders. Table 4 (see Annexure 10) shows the data extracted from the interview conducted with the college leader (dean or vice dean). However, for the sake of anonymity the researcher made no mention of their names. Here too, with the consent of the interviewees, the researcher applied the tape recorder.

5.3.5 Data generated from an interview with apprenticeship training coordinators at the selected TVET Colleges.

In both Selam and Entoto TVET colleges, special department was organized to lead the apprenticeship training program. The department was named as Counseling and Job Integrating Department as in the case of Entoto and Vocational Counselor as in the case of Selam. There were three experts assigned to this department in Entoto and one in Selam.

Some questions (see Annexure 5) related to the implementation of apprenticeship training were forwarded to these experts. Accordingly, both of them (one from each) expressed their willingness to respond to the questions prepared for this purpose. Due to ethical obligations, no mention was made regarding the names of the interviewees.

Table 5 (see Annexure 10) shows the data obtained from these experts. With the consent of the interviewees, the researcher gathered the data using tape recorder. As in the previous interview sessions, the interview here was conducted in English but its response was provided in Amharic.

5.3.6 Data generated from an interview with TVET trainers

Generally speaking, college trainers were assumed to equip trainees with all the necessary knowledge and skills. To this end, they were providing both theoretical and practical knowledge and skills of a given occupation. They arranged various kinds of implementation programs for the achievements of these objectives. They even established partnership with training institutions and industries/enterprises for the provision of better knowledge to the trainees.

With this understanding in mind, the researcher arranged interview programs with trainers at Entoto and Selam colleges. They were selected for the interview session on the basis of their training experiences in their respective colleges. Moreover, they were supposed to have better understanding of the apprenticeship training in their colleges. In view of this, an interview session (see the questions in Annexure 6) was held with each of these trainers separately. Lastly, the data obtained were shown in table 6 (see Annexure 10). There was no need to mention the names of the interviewees. No tape recorder was also employed while conducting the interview due to the refusal of the interviewees.

5.3.7 Data generated from an interview with Supervisors at the enterprises

Supervisors at the enterprises were the skillful people who were thought to have knowledge of their jobs. They were labeled with various names as; craftsmen/women, supervisors/mentors, etc. They were equipped with rich occupational experiences. They had a lot of knowledge and skills to share for others. The would-be craftsmen (apprentices), who started their journey at the colleges, need to gain the knowledge and skills of these people. Apprenticeship is thus assumed to be a vehicle that can realize this assumption. However, the situation on the ground should be seen to overcome all barriers.

The researcher attempted to investigate the barriers on the place where the actual apprenticeship training was taking place. In line with this, three supervisors from three different enterprises

were selected for the purpose of investigating the implementation of the program. They were selected from MMEE (see its map in Annexure 14), ACBTSE (see its map in Annexure 15) and HMMBI (see its map in Annexure 16).

The supervisors from the above mentioned enterprises were selected for their long term partnership with Selam and Entoto TVET colleges. The trainees of these colleges had been sent to these enterprises for more than three years. The supervisors were arranging the apprenticeship training program to the apprentices. So, it seemed appropriate to hold interview session with these supervisors. Consequently, the researcher conducted the interview session (see the question in Annexure 7) with each of them independently using a tape recorder with their consent. However, no mention of the interviewees' name was made. At last, the data obtained were demonstrated using table 7 (see Annexure 10).

5.3.8 Data generated from an interview with trainees/apprentices of TVET

Colleges

Trainees/apprentices were the focus of attention to both colleges and enterprises. All these institutions aimed at the apprentices or future workers/employees to equip them with the desired occupational knowledge, skill and attitude. This was the main aim of apprenticeship training program. In fact, apprenticeship training may seem unthinkable without its recipients-apprentices. Every training activity or program designed or implemented at the college or enterprise level can bring the desired result when it considers the apprentices at large.

In the preceding interviewee sessions, the researcher tried to seek information from the people who involved around the implementation of the apprenticeship training. However, none of them could be the main focus of the research as the apprentices. Hence, the researcher felt it necessary to involve the apprentices themselves in this kind of research. After all, the main aim of this research is to see ways of improving the bottlenecks of the implementation problems of apprenticeship training. This would be realized when the apprentices take part and express their views, values, interests, etc. regarding apprenticeship training.

A total of six apprentices were selected for the research. Three participants were drawn from Entoto and the other three were selected from Selam College. Based on their training level, three of them were from the electrical installation field of training and the other three apprentices were from food, machine and auto engine field of training. Five of them were males and one of them was a female. Three of them, chosen from Selam, experienced full time apprenticeship training for a month time. On the other hand, the other three took part in an on-and-off type of training program arranged between Entoto and the enterprises.

A structured interview (see the question in Annexure 8) was arranged for all interviewees. This was due to the fact that apprentices were not thought to provide elaborative response to the unstructured interview. However, the researcher tried to indulge in depth to get detail information from each interviewee. Each question was forwarded to each interview in English and was responded in Amharic. Eventually, the answer was recorded on a separate paper for each interviewee. Table 8 (see Annexure 10) shows the data obtained by applying the above procedure.

5.3.9 Data generated from FGD with apprentices

The FGD was held to complement the interviews conducted with the other interviewees. The rationale for including this tool was that the data collected from the other interviewees had to be substantiated by applying FGD. As it can be seen from the table, the apprentices selected for the research were young and were thought to have limited life experiences. This fact had a negative effect on the research unless it was supported by other evidence. Hence, the researcher held FGD with twelve trainees (who have gone through the apprenticeship training) selected from both colleges to generate more data that can support apprentices' interview. Accordingly, six trainees were selected from Entoto and the other six from Selam for this purpose. Equal number of females and males were selected. However, for the sake of anonymity, their names were not specified in the table. Instead, the researcher applied letters to stand for names. This fact is shown in table 9 (see Annexure 10).

In fact, the FGD (see the contents in Annexure 8) was held in two separate groups. The discussion, in each group, was led by the researcher himself. During the discussion, the

researcher tried to bring the attention of all participants to the issue under discussion. This strategy helped to gain more information. In table 9 (see Annexure 10), the codes of the discussion from each group were categorized in separate heading-Entoto and Selam. The Codes labeled for each discussion participant group were shown on the right-side column.

5.3.10 Data generated from observation at MMEE, ACBTSE and HMMBI

A word of caution is necessary when reading table 10, 11, 12 (see Annexure 10 and the main content of the observation format in Annexure 9). In these tables, we find the data collected by three different raters (whose names were not mentioned). The data were recorded separately to MMEE, ACBTSE and HMMBI enterprises. The raters were trained apprentices selected from the enterprise by the time when the data were collected. Variations in the data collected were noticed. Thus, the researcher left the result of recording when variation occurred; however, when there was no variation in the results, the researcher took it for granted as a facility or training service not available in the enterprise.

5.4 Summary of the Codes

The data obtained from each research participant has undergone the process of coding. When this process was completed, summarization took place. In doing so, the researcher tried to bring the Codes in four tables (See Annexure 23-26). The Codes brought under these tables were the ones that were thought to answer the research questions. This was confirmed by critically reading the responses of the interviewees.

Accordingly, table 'A(see Annexure 23)' contains the views of the experts selected from the two institutions; namely, TVET Agency and TVET Colleges. The researcher believes that these groups of experts had involvement in the implementation of apprenticeship training program. They were grouped together due to the common characteristics observed among them. They all fall under government TVET structure. Owing to this fact, their views on the problem under research was summarized in one table.

These groups of people were assumed to have better knowledge on the issue. Their responses in relation to the research questions, to its challenges, to the solutions to be proposed, etc can provide better image of the research problem under study. This view could be confirmed when

the data obtained from the above mentioned interviewees were systematically organized and summarized. Hence, Table 'A/see Annexure 23/' shows the summary of the interview transcript collected from TVET agency and college people.

Table 'B'/see Annexure 24/ contains the summary of the data gained from supervisors. Obviously, the enterprises shouldered the responsibility of providing apprenticeship training. Implicitly, they could also better explain the situation. For this reason, the responses of the supervisors from all the three enterprises were supposed to present clear picture of the research problem, its challenges and even the solutions to be proposed. The interview questions presented to the supervisors and the responses that followed were organized and summarized using a table. The researcher believed that the outcomes of these responses would enable to understand the factors that counteract the implementation of the apprenticeship training at the enterprises.

In similar ways, Table 'C/see Annexure 25/' was made to include the summary of the data obtained from apprentices. The apprentices were the focus of attention by all the stakeholders in the apprenticeship training program. They could better describe their interests, motivation, problems, challenges, etc. observed during the implementation of apprenticeship training. The researcher believes that relevant data were gathered to verify this statement. Apparently, the responses of this group of interviewees were supposed to have implication for the research problem.

The data from the apprentices were gathered (see Annexure 27-29) with reference to their motivation to complete their apprenticeship training, the professional qualities of their supervisors and the kinds of skills they acquired from the enterprises. However, differences in the views of the apprentices were observed. The researcher believed that disparity in views among the apprentices regarding their motivation, skill development and professional qualities of supervisors was taken as a factor for the success of the apprenticeship training program.

Table 'D/see Annexure 26/' shows summary of the data gathered from series of observations that took place at the three enterprises. It confirms the existence of the facilities and training services in the selected enterprises. It could be argued that the facilities and training services available at

the enterprises could be taken as requirements for the implementation of apprenticeship training. These requirements could play dual roles-for the training of apprentices and for enterprises' own purpose. However, if these facilities and services were found unavailable, they could have potential effect on the implementation of apprenticeship training in these institutions. In fact, the degree of influence depends more on the overall facilities and services available in an enterprise than on a single facility and service. In view of this, a table (see table D) was arranged to contain the summary of facilities and services that were found 'unavailable' at each of the enterprises observed.

5.5 Interpretation of the data

This research applied the theoretical statement of Bandura's (1977) theory of observation /imitation/, Vygotsky's theory of ZPD, contextual or the situated learning (Lave and Wenger, 1991), the constructivist view of learning, career theory and vocationalism as the main theoretical frameworks to describe the apprenticeship training process.

This effort helped to explain the problems that hampered the implementation of apprenticeship training. It paid attention to the influence of apprenticeship training stakeholders. This fact can be explained using the figure shown below. The figure contains two concentric circles. The outer circle contains equally partitioned four areas of a big circle. Each portion is supposed to represent the main actors of the apprenticeship training program: TVET Agency, TVET colleges, Enterprises and Trade Unions. The center of the circle represents the trainee or apprentice. The inner circle is the focus of all actors represented in the big circle. This fact is shown using arrows that emanate from all territories of the actors. However, the double arrows drawn within the adjacent boundaries of actors' territories show the interface that should exist among all the actors. This could be realized through well established communication system.



Figure 3: Diagrammatical representation of the actors involved in apprenticeship training

The influence of each actor, mentioned in the figure, was described in terms of its contribution to the occupational development of the apprentices. As discussed under 2.7.3 (lack of stakeholders' participation) of the review of the literature, lack of actors/stakeholders participation has its own effect on the implementation of the apprenticeship training program.

We can liken the above argument to the process of production in a factory. As it is known, all workers' activity is directed toward the production of commodity/commodities/service in a given factory. Workers of the factory add input/s on the product/service of the factory. A defective product helps people to trace the problem of the production process. The information obtained may indicate whose valuable 'touching' of workers skill was lost without being stamped on it. For instance, if a commodity is produced without being dyed, it would remind people of that department to check the dying process.

Similarly, we can argue that each actor of an apprenticeship training program contributes to the development of apprentice's knowledge, skill and attitude. This view goes with this research since it involved all actors of the apprenticeship training program. It seems reasonable to

perceive this fact by taking into consideration the involvement of each stakeholder and their constituent. Hence, the themes of the interview questions (as shown in Annexure 23-26) were interpreted based on the following major actors/organizations.

A/ TVET Agency

B/ TVET College

C/ Enterprises

D/ Enterprises' organization

E/ Trade Unions

This approach also enabled the researcher to investigate the views of each actor regarding the implementation of apprenticeship training. Moreover, it gave emphasis to the examination of the challenges of the training process. During the process, the researcher applied data triangulation method (Simons, 2009) using the different data sources applied in this research for a better understanding of the critical issues investigated.

A/ TVET Agency

The Addis Ababa TVET Agency was supposed to be the highest managerial body established by the Addis Ababa City Council to implement the apprenticeship training program in the city. To this end, there were two important state documents to be referred to its implementation process. The first document was “the National Technical Vocational Education & Training Strategy (MoE, 2008)” and the other document was “The Proclamation Establishing the Addis Ababa City Administration Technical and Vocational Education and Training Agency- Proc No. 11/2009 (Amended).”

The Agency was expected to implement the apprenticeship training program based on the directions set in the above two state documents. In the strategic document, two methods of training delivery systems were envisaged: the cooperative TVET delivery and apprenticeship training (MoE 2008: 30-31) delivery schemes. Despite this fact, as of 2011 onwards, the Agency has taken a firm stand by posing all the TVET colleges of the city to stick more to the cooperative than the apprenticeship model.

The reason was not supported by the results of an assessment of the apprenticeship training program of the city. Nevertheless, the researcher had also observed the implementation of the later kind of method in one of the selected colleges-Selam College. As in the experiences of most countries of the world, there is a policy option in Ethiopia to apply apprenticeship training model.

Whatever the case may be, both kind of training models in this research refer to the kind of training availed to the apprentices in agreement between the enterprises and the TVET colleges. Owing to this fact, this research did not intend to evaluate which of these models was effective. Instead, its main focus was on their implementation problems. In view of this, the current research focused on the examination of the factors that impeded the implementation of the apprenticeship training. The interviewees' response to the questions can explain the status of the apprenticeship training and its challenges.

In line with this, an attempt was made to examine the implementation status of apprenticeship training in the enterprises, interview questions were forwarded to experts selected from the TVET Agency. In the interview excerpts; words, phrases and even sentences were underlined to pay attention to the codes of the quotation/s.

The presentation of interview excerpts begins with the responses of the three experts selected from the Agency. Accordingly, they expressed their views on the current status of the apprenticeship training as follows:

“I believe the apprenticeship training is going on, somewhat, smoothly in most of the city's TVET colleges.”

“I noticed some problems. I discovered this through a survey research that took place last year. Some groups of experts, including myself, in the Agency participated in the survey research that investigated the implementation problems of the apprenticeship training. It was discovered that apprenticeship training has some implementation problems.”

“...I noticed awareness problems of apprenticeship training on the part of owners of the industries and the trainees, lack of commitment of the part of trainers, absence of means of transportation (that can take from the industries to the colleges), absence of insurance service for the trainees, lack of follow up by the trainers, lack of communication system, failure to use innovations and improved new findings, discoveries, and creativities are the challenges.”

The researcher believed that it was necessary to ask the interviewee to describe the status of the apprenticeship training program of the city. The attempt could enable us to understand the views of the people (delegated with its implementation of the program) about the situation. Thus, the above interview excerpts, directly or indirectly, explained the presence of implementation problems of apprenticeship training program. For instance, the outcome based training expert at TVET Agency described the situation as ‘[It]...is going on ‘somewhat’ smoothly. In his explanation, the phrase ‘somewhat’ might indicate the presence of unsatisfied situation. The apprenticeship training coordinating expert at TVET Agency, on his part, clearly indicated the presence of implementation problems. On the other hand, the monitoring and evaluation expert explained the condition, indirectly, by listing out some of challenges of the program.

In all of the above cases, we may perceive the presence of implementation problems of the apprenticeship training in the city. Its problem might have been discovered by the experts through the experiences related to their particular professional activities. This was explained under 5.3.1, 5.3.2 and 5.3.3 part of this research. The information supplied by the above mentioned experts could be taken for granted since all of the interviewees were supposed to have a link with the apprenticeship training process.

In connection with this, the challenges of the implementation process of the apprenticeship training program were further elaborated by these experts as:

“Lack of commitment on the part of trainer, trainee and supervisors, lack of regular follow-up by the trainer and problem of getting multi hosting enterprises.”

“Lack of awareness [on the part of enterprises], wrongly assigning apprentices, offering unfair grades, incapable of mentoring and lack of providing feedback [to the apprentice]”

All the interviewees have expressed their views on some of the challenges they noticed. These were lack of commitment, lack of regular follow-up [by the trainer] and problem of getting multi hosting partners, lack of awareness [on the part of enterprises], wrongly assigning apprentices, offering unfair grades, incapable of mentoring and lack of providing feedback.

However, a close scrutiny at each of the challenges mentioned above may seem appropriate to discuss. Lack of commitment and lack of regular follow-up could be attributed to failures of college trainers due to the fact that they were expected to perform accordingly.

Commitment, literally, may mean determination to accomplish a given task. When applying to the implementation of apprenticeship, it may indicate the exertion of efforts by all the people of the stakeholder to successfully achieve the objectives of the apprenticeship training. Consequently, regular follow-up and getting multi hosting enterprises may not take place properly. Instead, they may begin to act as serious challenges. As a result, the other challenges like absence of transportation and insurance services for the trainees, lack of establishing communication system, failure to apply better innovations and improved new findings, discoveries, and creativities would be left unaddressed.

On the other hand, the problem of getting multi hosting partners, lack of awareness [on the part of enterprises], wrongly assigning apprentices, offering unfair grades, incapable of mentoring and lack of providing feedback were mentioned as problems of the observed enterprises. The problem of getting multi hosting enterprises is the general characteristics of countries where the modern sector is underdeveloped and its consequence makes the apprenticeship training unable to meet the needs of the economy (UNESCO, 1992). In another research conducted by CAF (2004), lack of awareness of the apprenticeship was found to be one of its challenges.

Some characteristics such as offering unfair grades, incapable of mentoring and lack of providing feedback may go with the supervisors' professional competence. Taking the present conditions of the enterprises, these qualities may not come soon. However, when apprenticeship becomes more organized and systematic, it helps us to achieve all these. We can take the case of Norway where the above conditions have become obligatory for the supervisor (Cedefop, 1999).

Lack of awareness on the part of enterprises may mean having no understanding of the objectives of apprenticeship training and the reason why it is going on and all other issues related with the program as whole. If the enterprises have no clear understanding of the program, it will be hard for them to act accordingly. Having clear understanding or knowledge about the apprenticeship training is thus the basic issue to be addressed. In line with this, it was discussed (under 2.7.5 of the literature) that poor public perception of the TVET program, in general, could act as a challenge to its implementation.

As a remedial solution to this challenge, awareness creation program was envisaged in the Ethiopian TVET strategy. The policy further anticipated the steps to be taken (MoE, 2008). However, the questions here may be when and how did the awareness program take place, how frequent was it conducted, and to which stakeholders? These questions should be answered correctly. Otherwise, the situation on the ground showed the existence of some gaps left unaddressed.

The consequence of lack of awareness may inevitably lead to assigning apprentices to an occupation that may not go with their previous occupational choice. Similar mistakes may be committed regarding the offer of unfair grades, incapable of mentoring (or coaching the apprentice regularly) and lack of providing feedback to the apprentices. Unless the implementers of the apprenticeship program are aware of them, they may continue to occur.

In a FGD held with apprentices, the challenges of the apprenticeship training were similarly pointed out in the following way;

“The problem of searching and getting enterprise for apprenticeship training is the main problem, we don’t have stipend, soap, tissue paper, food, tea, coffee, milk and we are not provided with work uniform/cloth.”

“Enterprises don’t provide sufficient training program, lack good ethical qualities /respecting working time/ and lack commitment and were the most serious problems in the enterprise we were assigned.”

The FGD participants were all apprentices who experienced the apprenticeship training program during the course of the TVET training program. Due to this reason, they mentioned some of the challenges they faced during their stay in the enterprises. All the problems were mentioned from apprentices’ experience point of view.

However, the researcher observed variations in the kind of challenges mentioned by the two college apprentices. Entoto apprentices, for instance, mentioned problem of searching and getting enterprise for the apprenticeship training. This was due to the fact that there were some apprentices in the college who had been told to search enterprises on their own. Besides, they had no pocket money, and were not provided with work uniform at the enterprises. To them, these were the main challenges.

Selam apprentices, on the other hand, experienced problems of providing sufficient training to the apprentices at the enterprises and respecting working time by their supervisors. They also observed lack of commitment on the part of supervisors at the enterprises they were assigned.

The aforementioned interview responses could describe the challenges that were counteracting against the implementation of the apprenticeship training in the city. They were, in fact, explained by the various research participants-experts at the Agency and the apprentices themselves.

On the other hand, the experts further suggested ways of alleviating the implementation problems of apprenticeship training process by adapting the following measures:

“Measure by the Agency- awareness program to all stakeholders and special measure by TVET Colleges-graduation after CoC”

“Preparing one time awareness program”

“Creating awareness among the industry owners and the trainees, trainees should be evaluated and assessed objectively by the industries, sustainable monitoring and evaluation and feedback system should be placed, the trainees’ commitment has to be improved, transportation problems should be solved, the communication system should be improved and there should be transfer of technologies through creativities and scaling up system.”

Along with this, apprentices, on their part, proposed the following measures to ease the challenges:

“The college should search us hosting enterprises on its own, the college should increase the number of hosting enterprises and there should be a regular supervision program by the college.”

“On the part of the trainees, they should prepare themselves for the apprenticeship training/what will I gain, where will I be sent, etc/. Enterprises, on their part, should provide all kinds of knowledge/practical and theoretical/ to the apprentices, should respect training time, should inculcate love for work. The supervisors should exercise fair evaluation system. The trainers should enforce regular supervision program. There should be an established a communication system between the College and Enterprise. A careful assessment program should be conducted on apprenticeship training before we are assigned for apprenticeship training program.”

From the above interview excerpts one could see some of the possible solutions of the challenges of the apprenticeship training program. The solutions to the challenges were suggested by the participants listed above. We can see these solutions by categorizing them into two groups: apprentices and non-apprentices. Accordingly, the non-apprentices group proposed the need to

prepare an awareness program as the main solution to the challenge. Obviously, awareness problem could be solved by arranging programs to all who are in need. However, it should not be a onetime program as it was suggested by apprenticeship training coordinating expert at TVET Agency. It should take place, with regular assessment programs, on the gaps that may exist among the actors and the awareness programs should fill those gaps.

Other specific solutions like; trainees should be assessed objectively by the supervisors, sustainable monitoring and evaluation and feedback system should be placed, the communication system should be improved and transfer of technologies should be enhanced were suggested as solutions to the challenges. Obviously, the progress of the apprenticeship training should be monitored and its bottlenecks should be identified and feedbacks should be provided. Unless it is monitored in a systematic way, it may not achieve its desired objectives (Carlson, EdMay, Loertscher, and Cobia, 2003). Hence, regular feedback and communication system should be established between the enterprises and TVET colleges. But, it may seem difficult to observe the results of some of the suggested solutions by the participants. For instance, the issue of commitment and transportation problems may not be solved immediately.

Solutions to the challenges were also suggested by the apprentices group. Apprentices from Entoto College suggested that colleges should search hosting enterprises to all their trainees. They should also increase the number of hosting enterprises accompanied by regular supervision programs. These solutions might have emanated from the challenges apprentices have faced during the participation of the program. During the interview session with trainers of the Entoto College, it was disclosed that trainees were encouraged to search enterprises on their own.

On the other hand, apprentices from Selam College might have observed some ‘misbehaviors’ of apprentices that could not lead them to the completion of the apprenticeship training program. These apprentices further proposed questions that could draw the would-be apprentices’ attention to the apprenticeship training. An apprentice is, therefore, advised to ask what knowledge, skill and attitude of the occupation he will gain when he is assigned at the enterprises, etc. This kind of orientation programs may enable trainees to be aware of the program.

With reference to the situation observed in the enterprises, apprentices suggested ways of improving the practical and theoretical knowledge to be offered to the apprentices. They commented on the supervisors' respect for training time. They made note on efforts to be exerted by supervisors to inculcate love for work and the exercise of fair grading system in apprentices' mind. There are a lot of things that a supervisor can teach to the apprentices-verbally and non-verbally.

In an apprenticeship situation a supervisor can be referred as practitioner, master, advisor, or mentor (Carlson et al, 2003). In this situation, where there is mentor and mentee (in our case the supervisor and apprentice) relation, mentees are assumed to expect three characteristics from their mentors (Doyle & O'Neill, 2006). These are abilities (listening, questioning, competence, technical skill, guide, sympathetic understanding, and analytical ability), qualities (varied perspective, stimulating, approachable and loyalty) and attitudes (respectful, non-critical, forthright, positive attitude and supportive). These characteristics need to be encouraged in the enterprises.

Apprentices gave opinions on the college trainers' supervision program of the apprenticeship training since they were not applying regular programs. However, the situations that trainers may face both at their respective colleges and the enterprises requiring them to exert their professional efforts forbid them to overtly express their opinions. The current dynamic external and internal situations that professional people may face demand them to possess professional, ethical and leadership qualities (Bowman, West, Berman and Wart, 2004) all together.

The same was true for the communication system existed between the colleges and the enterprises since it was not systematically established. The apprentices further recommended on future training program to be carefully assessed before assigning trainees. The suggestions by the apprentices could be taken as reflections of the situation they faced during the apprenticeship training. All behaviors mentioned could be observed at the enterprises using simple observation.

B/ TVET College

As it is well known, the TVET colleges are training providing institutions where the actual theoretical and practical training programs are thought to take place. In relation to the issues in this research, leaders of the selected TVET colleges have mentioned the challenges of the practical training in their respective college campuses. Accordingly; Selam college leader mentioned these challenges as;

“The college could not buy some materials for the practical training from the market since they were not available. Also, the location of the college has incurred additional transportation expenses. This was due to the fact that the college was located at the outskirts of the city.”

On the other hand, Entoto college leader had described the case by attributing to one main challenge as:

“... the presences of outdated machines in the college’s workshops have caused the practical training somewhat difficult.”

The above quotations tell us the challenges of the two colleges while providing practical training within the territories of their respective colleges. This goes with the principle of the current TVET training delivery system. It gives more value (70%) to practice than theory (30%). It seems logical to investigate the problems of apprenticeship training, even at its inception, starting the college campus. Practical training in the colleges’ campuses enhances the chance of acquiring skill in the job chosen. It can, therefore, be considered as the other dimension of apprenticeship training. The challenges in the selected colleges could not be expected to be one and the same. A challenge to Selam College may not be the same as Entoto College. This fact was depicted in the above interview excerpts.

Obviously, challenges differ from college to college. Differences may be observed in the other TVET colleges too. Even if there are challenges and differences in the availability of facilities within the colleges’ campuses, the provision of apprenticeship training program is mandatory task to TVET colleges.

The researcher may ask a question regarding the presence of ‘outdated machines’ in Entoto TVET College. Does this situation have no impact on trainees’ acquisition of skills? Are trainees really being equipped with the necessary skills of the occupation they chose? Is the ratio 70:30 met? Thus, we may claim that the other dimension of apprenticeship training has a threat depending on the conditioned observed at Entoto College.

Bearing this in mind, we may ask a question how the two colleges started implementing the apprenticeship training specified in the enterprises. Data were collected from four interviewees of the colleges, i.e. from two apprenticeship training coordinators and the other two trainers. Accordingly, TVET coordinators explained how it was started in the following way;

“If it is an internal APT it is by setting schedule and if it is an external, it is through phone, letter or in person.”

“We get the enterprises through our trainers. After this, we assign our trainees at these enterprises. When we finish, we acknowledge their service and return to our college”

As it was explained earlier, under 1.10(c), Selam TVET College had better facility for the provision of apprenticeship within its own campus. It may be hard to estimate the amount of money expended to make the facility ready for the TVET training in the college campus.

Due to the availability of a better facility, the college administration easily organize a kind of training program known as ‘internal apprenticeship training’ for its own trainees. But, there was no training program specifically labeled as internal training program at Entoto College. Also, both colleges followed slightly different strategies when implementing the ‘external’ apprenticeship training in the enterprises. At times, both colleges choose the same enterprises for apprenticeship training. They reported implementation of the apprenticeship training in the enterprises, but with different tactics. Trainers of the two colleges described briefly the approaches they applied as follows;

“By seeking enterprises’ cooperation through letters, we send our trainees when they agree”

“The trainer is expected to do every activity to implement.”

The trainers of the two colleges described the approaches, applied in their respective colleges, differently. As the researcher himself witness (during the interview session), it was observed that trainer of Selam had not obligation to search enterprises for the trainees. The task was left to the vocational counselor of the college. But, the counselor, at times, requested support from the trainers, especially when he needs to supervise apprentices.

The approach at Entoto College was a bit different. It was delegated as being the sole responsibility of all trainers. However, one trainer (with whom the researcher conducted interview) had expressed his doubt on the achievability of this duty since he thought that the act had burdened the trainers with extra activities. This was expressed as ‘trainers [of the college] are expected to accomplish all these [all the apprenticeship training tasks left to them in the college] in parallel with their regular training program in the classroom. He asked for himself; how can this be implemented? Eventually, he expressed his fear on the practicability of the assignment.

Despite this fact, the college interviewees stated their views regarding the procedures they applied to select enterprises for apprenticeship training. These college interviewees, college leaders, apprenticeship coordinators and trainers expressed different views in this regard;

“By creating good partnership with companies/enterprises”

“By working with partners and by arranging awareness program for potential partners”

“Based on the information obtained through the trainer”

“For the external apprenticeship, we ask enterprises’ cooperation through letters. They may express their cooperation, either by phone, letter or in person when we send our people there”

“Both by trainer and trainees”

“By the vocational counselor”

As shown above, both college leaders may seem to agree on the need to create ‘good partnership’ as a better condition to implement apprenticeship at the enterprises. However, partnership cannot be achieved in one time relation. It requires long term relation and clear understanding on the objectives to be achieved. As a matter of fact, this task may not be accomplished by a single person or institution alone. It rather requires the collective efforts of all the people in the colleges and enterprises. Besides, it may need both parties to put clear directions to follow. The college leaders are thus important public figures who can facilitate partnership with enterprises.

In the Ethiopian TVET strategy, the kind of partnership needed to be established between the various stakeholders is well articulated. It gives emphasis on the success of the TVET implementation through the partnership of the government and non- government or public and non-public actors (MoE, 2008). The question here is whether the partnership has been established or not. If so, with whom and how strong is it? Does it perform according to the expected level? Based on the responses of the interviewees, we can conclude that these are unanswered questions.

Even if partnerships were not established, it did not prevent TVET from selecting enterprises for apprenticeship training. However, differences were noticed among trainers regarding the selection processes. In view of this, Entoto seemed to apply the following steps: first it gathers the information about the enterprises through the trainers and based on the information obtained, the college coordination office decides to work with these enterprises by arranging necessary programs. Next, the assignment of the apprentices follows. Selam, on the other hand, made use

of the vocational counselor as the main facilitator of the program. Accordingly, the researcher first asked enterprises' cooperation through letters or through telephone. It ended up with the task of assigning the apprentices at the enterprises. We may ask why variations were seen in the selection of enterprises. Should not there be uniform procedures? What repercussion did this variation have on the apprenticeship training process? Should the procedure applied by each college be taken for granted? Does it not need any improvement?, etc. Each question needs answers.

After seeking permission to send trainees at the enterprises, college interviewees were required to describe the procedures applied to assign apprentices at these institutions. Both apprenticeship coordinators, however, explained it as:

“First seek enterprises’ consent, assign mostly at the end of a course, assign year two and three trainees and assign them with transport allowance”

“Identify trainees’ gaps ,search enterprises that can fill the gap, training plan will be prepared by trainer and supervisor, trainees will be assigned, performance will be checked”

The apprenticeship training coordinators may appear to be the ideal persons who could describe the procedure applied to assign apprentices. In relation to this, they were required to explain the procedure applied to assign apprentices. Differences in the responses of these two experts were again noticed regarding the procedures applied. Hence, Selam seems to apply a simple procedure. This was due to the fact that it used to apply only three steps. It first sought enterprises' consent, prepared level two and three trainees (at the end of the level modules) for the program and at the end it sent them to the selected enterprises with transport allowances. However, the procedure applied by Entoto was long. The difference could have been due to the different model of training programs applied in the two colleges. Hence, it was known as ‘apprenticeship training’ at Selam and ‘cooperative training’ at Entoto. The later kind of training started in the college in 2011.

Trainers, on their part, made the procedure clear in the following way:

“Only 2nd and 3rd year[level 3 & 4] trainees take part in the apprenticeship training for two months. We have many types of machineries in our campus. Due to this reason, trainees have the chance to exercise in the campus.”

“..all trainees are expected to go to enterprises to gain work competence through apprenticeship training. It is the trainer who is expected to arrange everything for the trainees. He searches enterprises, signs memorandum of understanding, prepares training plans and follows its implementation.”

The trainees assigned for the apprenticeship training program were all trainees (level1-4) in the case of Entoto and only 2nd and 3rd year [level] trainees as in Selam TVET Colleges. In fact, the procedures applied to recruit and assign trainees were different in both colleges.

Although the colleges applied procedures to assign apprentices, the enterprises could not absorb all trainees of the TVET colleges. The reason for this explanation went with the presence of limited intake capacity in the enterprises. The interviewees of both apprenticeship coordinators and trainers had clearly explained this fact as ‘due to the limited capacity of enterprises’. The researcher believed that there should have been a correspondence in the number of trainees who need apprenticeship training and the enterprises intake capacity. Besides, all TVET colleges did reach consensus about the problem.

Nevertheless, the availability of limited intake capacity at the enterprises did not preclude the selected enterprises to accept only limited number of trainees. However, the issue of who should monitor and evaluate the already admitted trainees could not be overlooked. This was a question forwarded to all interviewees of the Agency and TVET college institutions. Accordingly; their views were depicted in the following paragraphs as:

“TVET Colleges, as the main actors, are expected to monitor and evaluate the implementation of apprenticeship training program”

“As far as I know, each trainer/instructor in each college is expected to supervise his own trainees during the apprenticeship training program

“...we don't monitor and evaluate since the task is left to an outcome based training core process of the Agency”

“...we try to make the trainer aware of the link between his training performance and its consequences-the benefits. Each trainer in the college is committed to make 40% of his trainees to pass the CoC. Unless he does so, he may not claim benefits. Also, there are three experts in Counseling and Job Integrating Department. They always supervise the occupational training at the enterprises. The vice training dean does similar activity. Moreover; we check reports every month”

“Colleges should strictly follow their trainees during their training process at the enterprises”

“We have an expert assigned for this task. But when I say one, I don't me that the work is totally done by this person alone. When evaluating the apprenticeship training in the enterprises, instructors will be assigned with him. But, communicating with enterprises, selecting trainees for apprenticeship is left to a special officer”

“The trainers in the college and counseling and job integrating coordination experts follow the apprenticeship training. At times the outcome based training vice dean also participates in this program”

“Every trainer in our college is expected to implement the apprenticeship training. In doing so, he/she is expected; to search for hosting enterprises, to prepare follow-up programs, to sign memorandum of understanding, to prepare training plan and other related duties. In reality we don't see this being implemented smoothly due to the influence of various factors”

“There is a person, vocational counselor, responsible for this purpose. This person, together with another college trainer, is supposed to supervise the implementation of apprenticeship training program”

The views of the all interviewees, as pointed out in the above interview excerpts, could be classified under two major broad categories: the views of interviewees from the TVET Agency and views of the colleges. Accordingly, interviewees of the Agency claimed that monitoring and evaluating was not the responsibility of the Agency. Instead, they believed that it was left to the TVET colleges. Hence, the TVET colleges were expected to do this task accordingly. However, a question may be raised whether the Agency had a stake on this task or not.

As put in the proclamation for the establishment of the agency, it was delegated (Article 9(9)) to oversee the implementation of the apprenticeship training. But, it seemed contradictory when the Agency excluded itself from the monitoring and evaluation tasks of the apprenticeship training. Should it not establish a system to follow its implementation? Mention was made by some of the interviewees on the research report of the problems of its implementation. However, the researcher’s attempt to get the report resulted in unsuccessful effort.

In the case of colleges, all interviewees seemed to be convinced that the task was the responsibility of the TVET College. For instance, Entoto TVET college leader explained the monitoring and evaluation system operating in his college. Selam college leader has also confirmed that the task was the responsibility of the colleges. Apprenticeship training coordinators had explained to the extent of the specific steps to be followed.

The trainers of the two colleges, on the other hand, confirmed that monitoring and evaluation was their task. However, there was an indication that its implementation was not done by them alone. Instead, they explained it as an activity that required support from ‘other’ people in the colleges. The trainer from Entoto seemed doubtful about the implementation of the task according to the direction set. The question of who should monitor and evaluate should go with the task of designing it systematically. As discussed in the literature part of the research, in 2.7.4,

weak Monitoring and Evaluation system may not allow seeing the achievements of the objectives set for the apprenticeship program.

The issue of who evaluates the apprentices while they were training at the enterprises was raised to the interviewees of the TVET colleges, especially to TVET trainers and apprenticeship coordinators. Their response had confirmed that the evaluation of trainees was left to the supervisors. They said it as follows;

“We don’t evaluate. It is the enterprise that does it. There is an evaluation format; using this format, enterprises evaluate the trainees.”

“When we arrange apprenticeship training, there is joint training plan. The evaluation system is specified in that plan and we expect the supervisor to accomplish it.”

“The evaluation of apprentices’ performance at the enterprises is left to the supervisors. But, this task requires training on assessment. I am not certain how many of them have gone through this process at this time.”

“We send evaluation format to the enterprises and the supervisors fill out the form and returns it through the trainees.”

All the above interviewees seemed to be the right experts to answer the question raised. From the responses of the apprenticeship coordinators of the two colleges, there seemed to be differences in the way the colleges obtained the results of the apprentices’ evaluation. Thus, Selam College chose shifting the responsibility of evaluating the apprentices to the enterprises alone. As part of this task, it sent a format to the enterprises to evaluate the apprentices.

But, there seemed a slight difference in the way Entoto accomplished the same task. By taking the preparation of the training plan (by both parties -the college and the enterprise) for granted, there may be options to exchange views on how to accomplish the evaluation process. Although

the expected results were one and the same, the processes they passed through differed. Preparing plan may have implication for getting information how to evaluate the apprentices.

Similar responses were obtained from the trainers regarding the issue. They all confirmed that the task was left to the supervisors. However, there was doubt from Entoto trainer about the success of the assignment. He argued that the task required training and he cast doubt on how many of the supervisors gained training to do the task. It is true that the evaluation of apprentices required training. In all the enterprises, the researcher met supervisors who did not sit for the CoC. This may show us that there existed training gap in filling out the training format properly. It also invites us to raise questions like: Is it enough to evaluate apprentices' performance by simply sending formats? Is it fair to endorse evaluation results done by untrained evaluators? What will be its cumulative effect on apprentices' occupations?

In line with the reporting of the apprentices' evaluation results, it seems that weak communication system exist between the colleges and enterprises. But, it was not unique to the reporting of the evaluation results, even the way they communicated regarding trainees admission seemed to have weaknesses as it was described in the following way;

“Using a letter, we ask enterprises permission for training. We notify them the number of trainees we have and ask them how many of them they can admit. They tell us their intake capacity either by letter or at times by phone”

“We have various means. The first one is the trainer or the department facilitates this task. We prepare and send brochures, about our colleges, to the enterprises through our trainees. The brochure contains plenty of information about our college. Secondly, we call our partners, even the potential ones, for a special meeting to discuss on TVET issues”

As the above interview excerpts testify, Entoto TVET College seemed to apply additional means of exchanging information with the enterprises regarding the apprentices' admission. As part of this, it used brochures that contain information about the college. It seemed a new means. If

applied correctly, it may attract enterprises toward the college and may pave ground for partnership on apprenticeship.

Letter by itself may not be enough to address needs. Letter and meetings are the common ways of communicating between institutions. However, the situation may require colleges to apply all means of communications to seek enterprises' cooperation. Even, calling a meeting may not be enough since it has been applied continuously and people may become fed up with it. One means of communication, applied year after year, may not bring the desired results. In relation to this, the researcher observed letter and phone as being the most common means of exchanging information between the selected colleges and enterprises.

In relation to the issue raised, Selam applied a letter to ask enterprises permission for apprenticeship training. It was further reported that the college was gathering enterprises' responses through letter or phone. But we may ask questions: what if these two failed? Why were they applied now and then? Were there no other means? However, in an interview with the apprenticeship coordinator, another means was also cited to go to the enterprises in person. How frequently was it applied? With what results?...etc.

It is true that apprenticeship training is an on-going process. It is not a onetime activity. It is a continuous process that has beginning and ending time. It requires planning for the future. In doing so, one does not overlook today's challenges too. It seems reasonable then to identify the challenges of the apprenticeship training program in the research areas. The effort will help for designing a better apprenticeship training in the future. On top of this idea, interviewees were asked to list the challenges of implementing apprenticeship training program within their area of responsibilities. Accordingly, they cited the following challenges:

“They [enterprises] say we have admitted trainees from other TVET Colleges. As a result they do not accept ours.They sometimes ask us very difficult questions. For example; a certain enterprise asked us to register for our trainees' life insurance.... On the part of the enterprises there is problem of understanding the evaluation formats... At times enterprises don't assign trainees in the right jobs.”

“To mention; failure to sign memorandum of understanding, unable to prepare common training plans, wrongly assigning apprentices,... etc.”

“The first problem is our failure to assign all trainees at the enterprises. We may have twenty but the enterprise may admit ten of them. The second problem is that enterprises wrongly assign our trainees in occupations that do not satisfy their interest.”

“There are enterprises that refuse to participate in the apprenticeship training program. These kinds of enterprises consider the task as government initiated task. I believe this problem is manifested due to lack of awareness. There are others who don’t want to sign the memorandum of understanding.”

The above interview excerpts indicate the presence of challenges of apprenticeship training within the colleges’ context. Some of the challenges were mentioned as problems to specific college. For instance, Selam reported that some of the enterprises were not voluntary to admit its trainees due to the number of trainees sent to the enterprises from the other colleges. There were similar complaints in the other college. The number of enterprises expected to admit TVET trainees may be limited in number. Every TVET college plans to send its trainees more to these enterprises than elsewhere. For this reason, the enterprises may ask very difficult questions to escape the colleges’ questions. They may insist colleges to register for life insurance, hesitate to sign memorandum of understanding and unable to prepare common training plans.

Other decisions like assigning trainees to a job that does not go with their college training background may be another manifestation of the problem. This may arise due to lack of awareness about the program. How can s/he be expected to act accordingly if the person does not understand the program? There may seem general lack of awareness about the program among the people in the enterprises. This may be manifested in different ways. Here we can cite the belief of some of the enterprises owners expressed as ‘apprenticeship is the government initiated task’. Was it the reason for arranging apprenticeship training? What were the visions set in this

respect? Obviously, these questions indicated the presence of awareness problems regarding the program. Yet, it may have its own potential effect on the implementation of the program.

However, the act of wrongly assigning apprentices at inappropriate jobs should not be taken as minor fault. It has a potential effect on the career development of the apprentices. Where and how can they get it unless apprentices acquired the right kind of skill at the enterprises? How can we eventually produce skillful persons for the labor market?

The next question was how the college interviewees' used to address the identified challenges. In response to this interview question, college interviewees' responded the strategies they applied in the following way. In response to this question, the researcher presented the following answers from the interview excerpts:

“For the time being, we are working with partners and we have planned to arrange similar awareness program to potential partners.prior to the awareness program we held at Ghion Hotel, we tried to arrange similar awareness program, and however, we could not.”

“As a solution to some of the problems, I personally went to the enterprises to discuss on the issue. We discovered that some of the problems came into being due to lack of awareness. We, thus, arranged awareness programs on some of the issues. Moreover, we invited enterprises to attain graduation ceremonies. Consequently; we encourage them by promoting their services and products in our magazines. As part of this strategy, we hold interview sessions with some enterprises' workers.”

“We designed a solution by assigning only few trainees [at the enterprises]. The other critical problem was that enterprises do not assign trainees according to their previous training orientation or choice of occupation in the college. Our solution to this problem was that we arranged a meeting with them. Some of the enterprises have shown improvement but the others have not. Thus, what we did

was we stopped our communication with these kinds of enterprises and searched other potential ones.”

“We examined the problem during the meeting with stakeholders. In our part, we reported the problems. Some of our stakeholders were able to recognize the problems during the discussion.”

In response to the question raised about the way challenges were addressed, the interviewees, college leaders and apprenticeship coordinators of the two colleges, cited their experiences. There was one common strategy cited by all four interviewees: ‘holding a meeting with stakeholders’ to address the challenges. As an example, we can mention Entoto College’s experience. After some efforts, it tried to hold a meeting with its stakeholders on apprenticeship training. Holding a meeting with stakeholders on awareness program may enable to gain clear picture of the program and may lead to an action. However, one time effort may not be enough.

In relation with this, other strategies were also cited by Selam College leader. These were personal visit to the enterprises to discuss the issue, inviting enterprises to attend graduation ceremonies and holding interview sessions with some enterprises’ workers. All may seem applicable to solve some of the challenges. However, one point is worth mentioning about the strategies cited by the colleges. Assigning few trainees and ending communication from enterprises that were not voluntary were also cited as strategies applied by the college apprenticeship training coordinator. For instance, Selam College sent less number of trainees. This may not be an ever lasting solution to the problem unless solved radically.

During the time of the research there were only 304 trainees enrolled at the Selam College. Due to this reason, it might have applied the strategies mentioned above. It can stop its communication with the enterprises which were not cooperative due to the less number of trainees it was admitting. Can it happen at Entoto and even in colleges that admit more trainees every year? Instead, an assessment should be conducted by colleges to find out the reasons. Care should be taken to apply any kind of strategy before it is applied.

C/ Enterprises

As it was explained earlier, enterprises are the hosting institutions for the apprenticeship training. They have supervisors who conduct the actual training of apprentices. The supervisors are supposed to have rich skill that can be inherited by the apprentices. They are the ones to be imitated. They liken to craftsmen/women.

The process of equipping apprentices with the right kind of skills is accomplished through the apprenticeship training at the enterprises. Supervisors were supposed to provide the required skill and knowledge to the various levels of trainees of TVET colleges. In the selected enterprises of this research, apprenticeship training was provided for level 1-4(except MMEE. It was providing only for level 3 & 4 trainees while the research was going on). But none of them had prepared special training programs for the apprenticeship training conducted in their respective campuses. This fact was reported by all the supervisors who were working in the selected enterprises.

However, regarding the procedure for evaluating the performance of the apprentices, the interviewees said the following;

“At the same time, we inform our senior supervisors to evaluate the manners, performances, and the safety application capacity of apprentices. In addition, the colleges require us to fill out the evaluation format and we evaluate them according to the instruction we get.”

“We comment apprentices during the working process, otherwise, we don’t apply continues assessment procedure. We don’t even assess them objectively at the end. But, before we dismiss them we gather and ask some oral questions.However; evaluating apprentices at this time is not done objectively since we use only two options-C (Competent) or NC (Not Competent).”

“We evaluate them through the supervisors we assigned for them. We start from ethics, manner, and safety application and production ability. At the end we fill out the format sent from the colleges.”

In all the interview responses mentioned above, supervisors used the evaluation format they received from the colleges. However, it was not the only one applied. Other 'enterprise based' evaluation was applied in the enterprises. The details of this were not mentioned by the supervisor. But, results were supposed to be applied to the objectives set by the enterprise. This could be inferred from MMEE supervisor. Regarding its application, all applied it using the formats they received from the colleges at the end of the apprenticeship training.

There seemed to be some doubt as to the reliability of the result obtained by the application of the above mentioned format. There may have been two reasons for it. The first one was that the format required supervisors to evaluate with C or NC grade only. Secondly, the supervisors were required to evaluate the apprentices at the end of the program rather than during the process. The supervisors' argument seemed to be strong since no continuous evaluation system was introduced in the enterprises. In relation to this, one may pose questions: Was it not possible to apply continuous assessment at the enterprises as it was done in the colleges? Did the TVET system not accommodate this? If so, did it not have repercussions on the overall assessment of the trainees?

The recording and the notification of the result was done also in the following way;

“Regarding the notification of the achievements of the apprentices, we fill out the format and send it through the apprentices. In fact, we show the report to the apprentices before we send it. We ask them for their comments. Finally, we record and file each apprentice’s performance in our data base.”

“The colleges send us an evaluation format and we assess apprentices using that format. We don’t record the result using any form here in our enterprise. We send the result to the college through the apprentices.”

“We don’t record the achievements of the apprentices we fill out the format and send it through the apprentices.”

As pointed out in the above interview excerpts, supervisors applied the evaluation format they received from the colleges. They all used the format at the end of the apprenticeship training program. They sent the results to the colleges through the apprentices. However, not all of them recorded the results in their data bases.

The procedure the supervisors applied to accomplish the evaluation process seemed to contain serious flaws due to lack of confidentiality in the way results were reported and failure to record them at the enterprises. Should the necessary data about the apprentices not be recorded in the enterprises? Are the apprentices' evaluation results not the necessary data to be recorded at the enterprises? Which data are recorded then? Even we can ask: can't they apply another method of reporting apprentices' results instead of sending it through the apprentices themselves? All these questions need answers regarding the recording of the apprentices' evaluation results at the enterprises.

The supervisors from the selected enterprises of this research were also asked on the general conditions of apprenticeship training program. Their responses to the specific questions presented to them were depicted in the subsequent paragraphs. The researcher believed that the outcomes of these responses enabled to understand the implementation status of apprenticeship training and other related issues observed in the enterprises. In view of this, the supervisors were requested how they provided apprenticeship training in their respective enterprises. The responses were recorded as follows:

“There is a person in our enterprise that follows the apprentices' case. This person inspects what courses the apprentices took when they were in their respective colleges and decides to which department they should belong to. During the training time, they will be assigned to the different levels of supervisors (junior-senior). We assign them with the workers and are expected to relate their college training with the jobs in the enterprise.”

“We arrange them special program. Accordingly, they observe during the morning session and practice in the afternoon- from 9 to 10 o'clock local time. In relation to this, a machinist, either in leaser, milling or shipper provides mentoring

support. I think observation is one method of training. We provide them training in this way.”

“When they [the colleges] send us the apprentices, we provide them work cloth and prepare them ID. Following this, we brief them on various issues related with training in the enterprise. To mention some; we teach them about work discipline, safety, including the work ethics and how they should be trained. ”

The above responses of the supervisors can remind us that there were various ways of beginning the apprenticeship training at the enterprises. Each enterprise seemed to follow its own way of starting the apprenticeship training. For instance, MMEE began by paying attention to the profile of the apprentices sent to it. However, nothing was said by ACBTSE how it started the apprenticeship training except arranging practical and observation programs. HMMBI was also following its own way of commencing the program in its campus. Accordingly; it began by providing general orientation. We can thus notice variations in the way enterprises started the apprenticeship training in their respective campuses. The approaches could cast doubt on whether these procedures were the right ones or not. It could implicitly inform us that there were differences in the way the apprenticeship training began in the selected enterprises.

Why did the disparities come into being? Was there no procedure to follow? Would there not be a need to follow the same procedure? After all, apprenticeship is a training process that has its own steps to follow. The enterprises should have had clear understanding of this process. They should have known how to start, how to go through and how to finish it. Otherwise, it would become more disorganized activity.

The issue of mobilizing resources for the implementation of apprenticeship was another question posed to the interviewees. For example, who had to cover the expenses for the apprentices was the basic question raised. Accordingly, the supervisors described the situation in the enterprises as follows:

“Regarding apprenticeship training we don’t allocate special budget. But, when apprentices come here for training we provide them transport allowance, work cloth, soap, tissue paper and shower service.”

“We don’t allocate special budget or material for apprenticeship training. But, there are materials left after each task is accomplished and we use them for this purpose.”

“We don’t organize a special resource for the apprenticeship training. We use the resource at our hand in the enterprise”

As in the preceding interview excerpts, here too, we can see variations in the responses of the interviewees. Each enterprise seemed to follow its own direction. However, all of them had reported the implementation of the apprenticeship training at the enterprises with no need for special budget. A critical scrutiny of the issue may help us to raise important questions regarding the budget issue. Budget should not refer only one source - the government. The enterprise, public or private, can also allocate budget for the apprenticeship training (as discussed in sub-section 2.7.2 of the literature review).

As far as apprenticeship training is a deliberate activity, it requires resource; all kinds of resources-time, material and finance. Who should generate it? There should be consensus about this issue. From the above interview excerpt, MMEE was providing pocket money for the apprentices assigned to it, whereas, the others did not. Was that not the result of budgeting? In fact, the availability of this kind of incentive has motivational value. It can raise the motivation level of the apprentices. In a research to investigate the challenges of apprenticeship training, lack of resources to support apprenticeship was found to be one factor (CAF, 2004).

It is true that training in any form requires resource for its implementation. However, the supervisors’ responses seemed to be inconsistent since some of them stressed budget as a requirement for the training in the following way:

“In fact, there should be budget. But, our enterprise is indirectly expending money on the apprenticeship training program. It is using its own materials for this purpose.”

“We use our own resource to train apprentices. In fact, we need money for extra expenses.”

In the above two interview excerpts, one can see inconsistency in the responses of the interviewees since they replied it as ‘no need for special budget’ to implement the apprenticeship training earlier. The reason for this could be due to the fact that the supervisors might have thought apprenticeship as a simple kind of training accomplished through observation alone. However, observation by itself may not lead to mastery of the skills of an occupation unless the apprentice tries to do in the way she/he is trained. When she/he enters into this phase, it may require the training providers to arrange all necessary conditions. This could be fulfilled by meeting the necessary conditions and it has budget implication.

Like the other interviewees, the supervisors had identified the challenges of the apprenticeship training. The following quotations were some of the challenges mentioned by them:

“We can raise a lot of issues. But, the most challenging one is the manner of the apprentices. The other problem is lack of knowledge on safety.”

“Our greatest challenge is the number of apprentices requiring apprenticeship training program. At times we observe apprentices’ misbehavior.”

“Our greatest challenges are:

- Apprentices’ number
- Time (since we use it for production as well)
- Trainees’ conduct; since some of them were not devoted
- Lack of pocket money
- Lack of follow up on the part of colleges trainers.”

In response to the question presented, interviewees mentioned the challenges they faced during the implementation of the apprenticeship training. The challenges differed from enterprise to enterprise. Obviously, all of them were not expected to have one and the same challenge. In line with this, the apprentices' conduct was mentioned as the common challenge observed in all the enterprises. This was, in fact, a problem pointed out by the college leaders too. The kind of expected manner of apprentices may differ from enterprise to enterprise since it may go with the enterprises' work rules. But, one of the interviewee specified it as apprentices' lack of interest to come on time and to shoulder responsibilities.

From the enterprises point of views, other misbehaviors might have been observed by the selected supervisors in their respective enterprises during the apprenticeship training program. Among the challenges observed, apprentices' lack of interest seemed to be common and decisive. If one lacks interest (Conley and Karabenick,` 2006) in the activity he is engaged in, he may not come-up with the desired results. The same is true for the apprenticeship training. If the apprentice lacks interest in it, he/she may not be in a position to observe, perform or do other related activities in the enterprises. Eventually, the apprentices would not acquire the desired skill of the occupation. Hence, lack of interest can be taken as a major factor not to do so.

The other challenges mentioned by the supervisors were apprentices' number; problem of balancing time; lack of follow up on the part of colleges' trainers and lack of knowledge on safety. Lack of knowledge on safety may not be serious challenge to the enterprises as it can easily be solved if it comes to the attention of the colleges. However, the other related issues need attention and may have implication for the implementation of apprenticeship training.

The apprentices' number has become an issue of concern both by the TVET colleges and the enterprises. High number of apprentices can be a threat to gain the right kind of knowledge and skill. Thus, it is advised, if possible, to maintain very low supervisor-apprentices ratio in the apprenticeship training programs (Carlson et al, 2003).In an interview conducted with Entoto College trainer and Selam College apprenticeship coordinator, high number of trainees was mentioned as the main challenge to the colleges. Similar complaints may be raised by the other TVET colleges and enterprises. Unless the intake capacities of all the enterprises and TVET

colleges of the city are known, it will be hard to talk about the correspondence of apprentices' number with enterprises.

The other challenge was the problem of balancing time at the enterprises. The enterprises willing to provide the apprenticeship training can be classified as either manufacturing or service providing. An enterprise selected for apprenticeship training will have two missions. The first task goes with the very existence of the enterprises; providing services or producing products. In parallel with this, enterprises may be expected to provide apprenticeship training to the apprentices. Here comes the question of balancing. How can an enterprise do both tasks by balancing its time? An enterprise may use all its time by producing or providing service without giving attention to the training of the apprentices or the vice versa (even if the later one did not happen so far). Hence, care should be taken to balance both tasks. This could be implemented by holding discussion with enterprises and colleges.

The other issue was lack of follow up on the part of colleges' trainers. The task of following apprentices while they were engaged in the enterprises seemed left untreated. This was due to the fact that college trainers complain about the volume of work assigned to them, while the college leaders complain about the lack of trainers' devotion to supervise. In all cases, trainers were not regularly supervised during their stay in the enterprises. Its consequence can be reflected in the production of apprentices without the necessary occupational skills.

Some possible solutions were, in fact, proposed by the supervisors in the following way;

“I remember there was a discussion forum held at the national hotel last year. My boss took part in that half-day long discussion held in Addis Ababa. The challenges were raised and discussed. At the same time, we rarely discuss the challenge with the trainers at the colleges. The frequency of holding discussion on the challenges is less.”

“When the trainers come here for supervision, I report them the problem. I frankly report them not to send us more apprentices. This is not, in fact, a problem to be solved by them.”

Some of the supervisors have mentioned possible solutions to the challenges. Discussions and reporting were proposed by the selected interviewees as solutions to the challenges. These were suggested from experience point of view as they all referred to the time the solutions were applied. Obviously, discussion programs on some of the challenges may bring solutions. However, it should not be observed as a fashion done at a time. The implementing bodies should frequently come together and discuss issues on the implementation of apprenticeship training. But, in our case, how frequent was discussion held between the stakeholders? It was answered as not frequently (see table 7). Meaning, it was not done on regular bases. How can challenges be addressed in this way?

Reporting was also mentioned as one solution to the challenges. How formal was it? What procedures were applied? What results obtained?...etc. As far as reporting was cited as a solution to the challenge, it had to be specified with the detailed information how it was accomplished. But, it was not done systematically.

D/ Enterprises' organization

The actual apprenticeship training process takes place at the enterprises. This would be successful when enterprises are equipped with human and physical facilities. Without the fulfillment of these conditions, it would be hard for the apprenticeship program to be effective. Each of these factors is mutually exclusive.

On top of this idea, the researcher tried to assess the availability of the training and physical facilities in each of the selected enterprises through checklists filled by trained apprentices. To this end, he applied a checklist of basic physical and training facilities available at each of the enterprises chosen. It was prepared to contain more training services than facilities. This was due to the fact that the objectives of the apprenticeship could be achieved better by providing more training than facilities. The researcher, therefore, believed that this service should better be checked than the availability of the physical facilities.

However, the results have shown that enterprises lack either facilities or training programs related to the provision of the apprenticeship training. In all the three selected enterprises, one of the following conditions was missing;

- Either physical facilities/ See No.1,2,3,7,22,23,24,25,26,27,28,29 and30
- The training services /See No.4,5,6,8,9,10,11,12,13,14,15,16,17,18,19,20,21,31,32,and 33

In the selected enterprises, the presence of one condition may be higher than the other. For instance, at MMEE, out of five conditions to be improved, one (No.2 only) was about facility and the other four (No.11, 12,31and 32) were about training services. At ACBTSE, out of thirteen conditions to be improved, six (No.1, 2, 3, 26, 28 and 30) of them were about facility and the other seven (No.9,11, 12,14,22,31 and 33) were about training. Similarly, at HMMBI, out of nine conditions to be improved, five (No.1, 2,3,28 and 29) were about facility and the remaining four (No.8,9,14 and 16) were all about training. The results showed that in all the selected enterprises training service lag behind the provision of physical service.

The difference in the availability of the above mentioned conditions could be attributed to various reasons observed in each enterprise. However, its implication for the successful implementation of apprenticeship training is significant. Hence, it requires the attention of enterprises to balance the conditions.

E/ Trade Unions

Trade Unions can play a role in implementing the apprenticeship training by being intermediary institutions between the enterprises and TVET colleges. However, they play no significant role in the Ethiopian context. This is due to their limited legal responsibilities. The Act (Proclamation No. 341/2003) for their establishment states (FDRE, 2003);

“Membership shall be voluntary.”(Article 20(2))

Based on the law stated above, any enterprise can become a member of the Chambers of Commerce and Sectorial Associations depending on its own willing. Membership is not compulsory. This may go with the political philosophy of the country. As far as the country is democratic, the government might have preferred membership to be voluntary.

However, this has an effect on seeking cooperation on apprenticeship training from all enterprises of the city. There may be enterprises which preferred membership on voluntary bases. But these enterprises could have become hosting institutions for apprenticeship training if they had been accessed through the Trade Unions.

During the time of the research, the researcher tried to hold interview sessions with the experts at the Addis Ababa Chambers of Commerce and Sectorial Associations Office on the issue. But he was told that the city Chamber of Commerce did not establish an umbrella association that could embrace all enterprises of city. As a result, my attempt to hold interview on apprenticeship training ended in vain.

However, the experience of the German Chamber of Commerce may help us to understand the role of Unions in facilitating apprenticeship training. Rhine-Main Chamber of Skilled Crafts is a self-governing body of skilled crafts sector in Germany. It has more than 30,000 business members in the districts of Rhine-Main Chamber of Skilled Crafts. It generates a turnover of 12 billion Euros with a workforce of 140,000 people (RMCSK, 2010).

Rhine-Main Chamber of Skilled Crafts represents the interest of its business members by providing training and technical assistance. It also supports its skilled crafts people until they are self-employed. Besides, it supports apprentices during their apprenticeship training at the enterprises. It assists both apprentices and business organizations in achieving the apprenticeship training. It checks every apprenticeship contract and work towards its successful achievements (RMCSK, 2010). The presence of these kinds of institutions can help the implementation of apprenticeship training by linking TVET Colleges and the Unions.

F/ The case of trainees/apprentices

As shown in figure 3 above, apprentices are the focus of attention by all stakeholders since all aim at changing the apprentices' personality through training. This can be attained when each stakeholder performs according to standards set for it.

In conjunction with this, apprentices are expected to acquire the knowledge, skill and attitude of a given job at the enterprises. We can imagine that apprenticeship training is a deliberate activity that aims at bringing a change on the apprentices' personality. In doing so, one cannot neglect the preconditions that increase or decrease this result.

We should, therefore, consider the interests, values, motives...etc., of the apprentices who are supposed to be changed through this activity. We may, therefore, ask how apprentices were motivated to participate in the apprenticeship training process, what motivating and demotivating factors were there in the enterprises, how supervisors were contributing for the skill development of apprentices, what was the feeling of apprentices toward the professional qualities of supervisors assigned to train them, etc. These and other questions (through interviews) were posed to the apprentices and their responses were summarized in table 'C'/see Annexure 25/ and Table 9 in Annexure 10.

The summary table 'C' /see Annexure 25/ shows mainly the specific factors that showed disparities in the responses of the interviewees. Almost all disparities of responses (indicated by listing the responses of the apprentices) of the apprentices have captured the attention of the researcher as areas of problems to be improved. Hence, it can be observed that there is an indication of problems in apprentices' motivation, skill development and supervisors' professional qualities. This could be justified by considering the subsequent responses obtained from the apprentices regarding motivational factors/see Annexure 27/. For instance, in the following list of factors, we get;

- Know the reasons why apprenticeship is organized in the enterprises
- Motivating factors for the apprentices' stay in the enterprises
- Assignment of apprentices /by chance or choice/
- Things apprentices like and dislike in this enterprises
- Goals set by apprentices when going to the enterprises
- Specific motivating factors:1/ Interest 2/ Apprentices' own confidence 3/Attitude of the 'people' in the enterprise 4/ Enterprise's capacity to provide the training.

Each of the above factors were selected by the apprentices as having effect, either positively or negatively, on the degree of participation in the apprenticeship training program. On the other hand, apprentices (during FGD) have also expressed, some mitigating factors of interest of apprenticeship training by citing the following;

- The college regulation that requires us to search enterprises.
- Lack of proper organization at the enterprises.
- Observing repetitive tasks at the enterprises and
- Failure to get the right kind of apprenticeship training at the enterprises.

Similarly, we can read the other factors under the broad categories of apprentices' skill development and professional qualities of supervisors. Regarding skill development/see Annexure 28/, the selected apprentices of the research have expressed different views on the factors that could have a link with the skill development program in the enterprises. Accordingly, they have shown differences in;

- Views on the alignment of enterprise's organization with the occupational requirements
- Views on the new skills added to them by the enterprises
- Views on the arrangement of the actual programs for skill acquisition at the enterprises
- Views on the assistance provided to change the negative attitudes of the apprentices toward the job they chose.
- Views on the new skill programs to be arranged by the enterprise
- Views on the weaknesses of the enterprise to be improved for future skill development.

In each of the above factors of skill development, apprentices have shown difference in their views. This has an implication for the arrangement of skill development program through the apprenticeship training at the enterprises.

Likewise, in each of the categories listed under the general heading 'professional qualities of supervisors'/see Annexure 29/, we find subcategories that caused differences in the responses of apprentices. Each of these factors mentioned below were thought to have potential effect on the apprenticeship training of the apprentices. These were:

- Providing opportunities for apprentices' observation of the occupation

- Evaluating apprentices' performance
- Providing technical advice to the apprentice
- Show role model in the enterprise
- Grading was fair & objective and free from bias
- Discussing unrelated topics
- Preparing apprentices for the apprenticeship training
- Providing mentoring service to all apprentices equally
- Coming to training place on time
- Taking apprentices' attendance regularly
- Lacking knowledge of the occupation
- Using limited number of training methods
- Expressing negative attitude toward the occupation
- Lacking professional devotion

As in the above two broad categories, similar differences were observed in the views of apprentices regarding the supervisors' professional qualities. Thus, the researcher believed that the specific factors shown under each broad category are issues to be considered while implementing the apprenticeship training. The selected responses of the apprentices were chosen due to their significant influence on the apprenticeship training program.

An effective mentor is expected to possess (by maintaining the positive and improving the negative ones) the above professional qualities in order for the apprentice to actively participate in the apprenticeship training (Carlson et al, 2003).

5.7 Synthesis

This research paid attention to the external and internal conditions surrounding the TVET Colleges that could affect the implementation of apprenticeship training programs. The factors were explored within and outside the TVET Colleges. Description of what was going on, what the setting looked like, what the people involved were doing, and so on, has the power to convey clear message and can enhance communication (Corbin & Strauss, 2008). Each of the settings (TVET Agency, Entoto TVET college, Selam TVET college, MMEE, ACBTSE and HMMBI),

where the research took place, were briefly described in this research report. Following the description of general coding system, which focused less on detail and more on the general essence, has taken place (Corbin & Strauss, 2008).

During contacts with each participant, the researcher tried to make himself clear, explained the purpose of the interview, the procedures applied to choose them for interview, the time they should spare for the interview, and the ethical obligations he should follow. The interviewees consent was secured and interview sessions were held with each interviewee. The researcher gave copies of the interview formats to each interviewee two days prior. For the sake of anonymity, the identity of the interviewees was not disclosed in the research. The interview questions are shown in Annexure 1-9. A tape recorder was used during the interview with the consent of some of participants. At the end, a series of interview session were held with the participants and the interview transcript was organized using tables. The researcher applied three recommended stages (Punch, 2005); namely, coding (built by taking the themes), summarizing the codes (using summary tables that have implications for the research problems) and interpreting the data. The coding process paid attention to each of the interview transcripts through a critical reading process and was organized in to 12 tables (see Annexure 10). The codes were then organized into 4 tables (A,B,C and D) /see Annexure 23-26/. Table 'A' (Annexure 23) contains the views of the experts selected from the two institutions; namely, TVET Agency and TVET Colleges. Table 'B'(Annexure 24) contains the summary of the data obtained from supervisors. Table 'C' (Annexure 25) was made to include the summary of the data obtained from apprentices. Table 'D' (Annexure 26) shows summary of the data gathered from series observations that took place at the three enterprises.

During the process of organizing and analyzing the data, the researcher applied a data triangulation method (Simons, 2009) using the different data sources for a better understanding of the critical issues investigated. This process enabled the investigation of the views of each actor regarding the implementation of apprenticeship training. It also gave a clear picture of the challenges of the apprenticeship training process. *Chapter six will focus on summary, conclusion and recommendations.*

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Summary

This qualitative research was carried out to investigate the causes of the implementation challenges of the apprenticeship training programs in the Addis Ababa Administrative Region. By exploring the kind of training that took place in the workplaces, the current investigation paid attention to the kind of job skill that apprentices gain during their participation in apprenticeship training program.

The relevant literature materials on the problem were reviewed under the second chapter of this research. In view of this, it opened its discussion by posing the reasons why it intended to discuss the issues raised under the chapter. It was followed by the discussion on the history of apprenticeship training from the global and Ethiopian perspective. In relation to this, the history of apprenticeship training at the global level was thought to link with the history of different research fields. Its history, related with the technical, vocational education, in the Ethiopian context was thought to link with the introduction of TVET in the country.

Trends in the provision of TVET program, with the apprenticeship training in it, at the global level were discussed in the literature. In line with the TVET provision, different models of apprenticeship training systems were also discussed.

The literature review has also paid attention to the benefit of skill training in TVET program due to its unique role for the success of all aspects of development by providing skilled manpower. In relation to this, the motivation of the trainee was considered as one factor for the success of skill training. It is assumed to have power for selection of a research or occupation and the research findings were discussed in detail.

The implementation of apprenticeship training program at the enterprises level was believed to start by clearly setting its objectives and designing a series of steps. However, various factors could contribute for its ineffective implementation. Among these, we can mention failure to

maintain partners' coordination. Besides, institutional arrangements among unions, industries, training providers and state regulatory authorities should be established.

Further studies conducted to ascertain the implementation problems of TVET have shown that lack of legal framework, inadequate financial resource, lack of stakeholders participation, weak Monitoring and Evaluation system, poor public perception of the TVET program, lack of facilities in the enterprises and poor professional capacities of supervisors can be taken as some of the impediments.

In relation with the issue in the research, chapter three of this report discussed the learning theories that can describe apprenticeship training process. In view of this, it paid attention to the learning theories that emphasize on the role of environmental influences. This was due to the fact that apprenticeship training takes place outside the formal classroom. The research applied the theoretical statement of Bandura's (1977) theory of observation /imitation/, Vygotsky's theory of ZPD, contextual or the situated learning (Lave and Wenger, 1991), the constructivist view of learning, career development and vocationalism as the main theoretical framework to describe the apprenticeship training process.

By exploring the kind of learning that took place in the workplaces, the current investigation could not be undertaken without due consideration to the kind of knowledge that apprentices gain during their participation in apprenticeship training. By focusing on the investigation of the causes of the implementation problems of the apprenticeship training program, this research collected data to answer the research questions set in chapter one. Accordingly, unstructured interviews, observation to assess supervisors and the enterprises and Focus Group Discussions tools were employed to collect data.

The data were collected from key informants (college apprenticeship training coordinators, trainers, trainees and supervisors) and the actual training process was observed at the enterprises by employing trained apprentices and observation checklists. Using purposive sampling, enterprises and TVET colleges (from both public and private colleges) were chosen on the basis of the experience they acquired during the implementation of apprenticeship training in the

previous years. Based on the selected the enterprises, all supervisors who were responsible for the apprenticeship training were interviewed. Criteria were set on the apprentices who were assigned in the enterprises. The selected apprentices formed the members of FGD group. Using purposive sampling, a sample of six apprentices assigned from each college to enterprises was selected for FGD.

The analysis was made based on the nature of the tools employed to collect the data. The data collected were using Focus Group Discussion (FGD), interview, and observation. Before the actual analysis took place, they were organized and coded. After organizing the data, the next step was to let each separate folder undergo the process of coding, summary and interpretation of the data.

Interpretation of the data was made based on the research questions set. When there were possible contradictions and some conflicting themes that seemed challenging to the researcher, the researcher tried to make his own perspective and understanding to make sense out of these. In line with this, additional data were collected to from college deans to verify or fill the gap of some of the incomplete data during the process of analysis.

Eventually, the following major findings of the study were discovered. /reference is made to locate the data/

- Regarding Trade unions, there was no involvement (**as shown in 5.5E**) recorded in the implementation of the apprenticeship training program.
- In the selected enterprises (**as shown in 5.5A &B**) there were problems of commitment on the part of supervisors, lack of awareness on the program, wrong assignment of apprentices at the enterprises, offering unfair grades to the apprentices, incapable of mentoring the apprentices, lack of providing feedbacks to the apprentices and to the colleges, providing insufficient training to the apprentices, hesitation to admit trainees for apprenticeship training, refusal to sign memorandum of understanding, failure to prepare common training plans with colleges, problem of balancing training and manufacturing time and absence of facilities or well-designed apprenticeship training programs.

- Similarly, in the TVET colleges (**as shown in 5.5C**) there was lack of commitment on the part of trainers, lack of regular follow-up, problem of getting multi hosting partners, presence of high number of apprentices requiring apprenticeship training, presence of undeveloped practical training providing facilities, lack of apprentices' interest in apprenticeship training, presence of trainees' misbehaviors and applying limited means of communication with the enterprises.
- The TVET Agency (**as shown in 5.5A**) of the city was not able to regularly monitor and evaluate apprenticeship training with the TVET colleges during the implementation of the apprenticeship training.
- The selected colleges and enterprises (**as shown in 5.5B & C**) address their challenges by using limited strategies and without regular and systematic way.
- The presence of some demotivating factors (**as shown in 5.5F**) for the participation of the apprentices in the apprenticeship training was reported.
- The presence of conditions (**as shown in 5.5D**) that could adversely affect the apprentices' acquisition of occupational skills was reported.
- There were some indications for the presence of some weak professional qualities (**as shown in 5.5F**) of supervisors that have implications for apprentices' training.

6.2 Conclusion

It may be known that the production of skillful persons at any level is decisive to a country's development. To this end, there may be various means of training programs. Among some, apprenticeship training or the kind of training process jointly accomplished between the TVET training providers and enterprises-service providing or manufacturing enterprises can be the one. Efforts were exerted by TVET training providers and enterprises to produce middle level skillful persons. Similar efforts need to be exerted to correct the implementation challenges of the

apprenticeship training program. Otherwise, the production of middle level skillful persons cannot be attained.

In line with this, this research intended to investigate causes of the implementation challenges of the apprenticeship training program in the Addis Ababa Administrative Region. To investigate the problem, the qualitative research approach was employed. The data enabled to conclude that the implementation of apprenticeship training program requires the consideration of both **institutional** and **human** conditions. The institutional conditions refer to the necessary facility available in the apprenticeship providing institutions. On the other hand, the human conditions refer to the interest, motivation, commitment, etc. of people involved around the program. The current research suggests that context specific **institutional** and **human** conditions should be considered when dealing with apprenticeship training and the application of the selected learning theories.

Lastly, based on the data gathered through the various tools mentioned, the researcher has made the following conclusions.

6.2.1 Active involvement

Apprenticeship requires the active involvement of all stakeholders. However, the involvement of Trade Unions in the implementation of the apprenticeship training in the Addis Ababa city was found to be insignificant. This was due to the fact that they were delegated with limited legal responsibilities.

6.2.2 Training model

The implementation of the apprenticeship training program in the selected colleges has adapted different training models that emanated from the stated policy options of TVET strategy- apprenticeship and cooperative model. In both selected colleges, apprentices were sent to the enterprises mainly to gain skills on the occupations they chose. However, disparities were seen among the colleges regarding the following issues:

- Training design: Based on differences in the colleges' facility, both external and internal kind of apprenticeship training programs were observed in Selam College. Whereas, the later kind of apprenticeship training was not noticed in Entoto TVET college.
- The procedures applied to assign apprentices: Selam first seeks enterprises' consent, then completion of a module and lastly the assignment of level two and three trainees to the enterprises by providing them with transport allowances. However, Entoto applies the following successive steps: first identifies trainees' gaps, search enterprises that can fill the gap, prepare training plan with the trainer and supervisor, and finally assigns the trainees.
- The way colleges address challenges: Entoto provides one time awareness program to the enterprises. Besides, its college leaders at times visit the enterprises and sometimes invite enterprises to come to the college and take part in some occasions like graduation ceremony. Selam, on its part, holds interview sessions, assigns few trainees at the enterprises, sometimes arranges meeting with enterprises and invites enterprises to take part in special occasions like occupational fair in the college.

6.2.3 TVET Colleges

Taking the present conditions of the TVET Colleges into consideration, we can cast doubt on full level implementation of the training delivery system based on the 70:30 ratios. This was due to the presence of undeveloped facilities within the college campuses.

6.2.4 Status of apprenticeship

With reference to the prevailing conditions of the situation in TVET colleges and enterprises of Addis Ababa city, the status of the apprenticeship training program was believed to have some implementation challenges.

6.2.5 Procedure to select enterprises

Regarding the procedures applied to select enterprises for apprenticeship training, there was agreement between the college leaders on the way enterprises should be selected. Both college

leaders agreed on the need to create ‘good partnership’ as a prerequisite to implement apprenticeship in the enterprises.

6.2.6 Intake capacity

In the selected enterprises, there was no chance to absorb all trainees of the TVET colleges for the apprenticeship training. This was rationalized by the enterprises due to their limited intake capacities. However, there was no information available on the number of trainees who need apprenticeship training from TVET College and the actual intake capacities of enterprises in the city.

6.2.7 Shifting responsibilities

There seemed to be a tendency, among institutions, to shift the burden of responsibility to the other regarding the monitoring and evaluation programs. In relation to this, it was confirmed that there was no systematic monitoring and evaluation system established for the implementation of the apprenticeship training.

6.2.8 Evaluation of apprentices

The evaluation of the apprentices, while they take part in the apprenticeship training at the enterprises, was left to the supervisors. However, there was doubt about its success since it was done by the supervisors who did not pass through the CoC.

6.2.9 Communication

In the selected TVET Colleges there was limited communication means. Most of the time letter or telephone was employed to facilitate the exchange of information with the enterprises regarding the apprentices’ admission.

6.2.10 Meeting with stakeholders

Most of the time the colleges addressed the challenges they faced by holding a meeting with stakeholders. They also applied other alternatives like paying personal visit to the enterprises, inviting enterprises owners to attend college graduation ceremonies and holding interview

sessions with some important enterprises' workers. They were not, in fact, done on regular and systematic way.

6.2.11 Continuous assessment

The method of continuous assessment was not practiced and even introduced in the selected enterprises. Supervisors at the enterprises simply evaluated apprentices as C or NC grade at the end of each apprenticeship training program.

6.2.12 Communication system

The communication system operating between the colleges and enterprises contained serious flaws. It was characterized by lack of confidentiality in the way results were reported and failure to copy results at the enterprises.

6.2.13 Lack of uniformity

There were various ways of starting the apprenticeship training at the enterprises. Each enterprise followed its own way of starting the apprenticeship training and they lacked uniformity.

6.2.14 Budget allocations

Supervisors had no clear idea about the need to allocate budget for the implementation of the apprenticeship training at the enterprises.

6.2.15 Apprenticeship training

There were reported challenges of apprenticeship training in the stakeholders. The stakeholders could be put in order of more to less degree of manifestations of the challenges. Accordingly;

- Regarding Trade unions, it could be concluded that there was no participation recorded in the implementation of the program.
- In the selected enterprises there were problems of commitment on the part of supervisors, lack of awareness on the program, wrong assignment of apprentices at the enterprises, offering unfair grades to the apprentices, incapable of mentoring the apprentices, lack of providing feedbacks to the apprentices and to the colleges, providing insufficient training

to the apprentices, hesitation to admit trainees for apprenticeship training, refusal to sign memorandum of understanding, failure to prepare common training plans with colleges, problem of balancing training and manufacturing time and absence of facilities or well-designed apprenticeship training programs

- Similarly, in the TVET colleges, there was lack of commitment on the part of trainers, lack of regular follow-up, problem of getting multi hosting partners, presence of high number of apprentices requiring apprenticeship training, presence of undeveloped practical training providing facilities, lack of apprentices' interest in apprenticeship training, presence of trainees' misbehaviors and applying limited means of communication with the enterprises.
- The Agency was not able to regularly monitor and evaluate apprenticeship training with the TVET colleges during the implementation of the apprenticeship training.

6.2.16 Provision of apprenticeship

Regarding the provision of apprenticeship training at the enterprises, there were some enterprises that lack either facilities or training programs, and qualities in order to arrange the program for TVET college trainees.

6.2.17 Motivational factors

Some motivational factors that were thought to have effect on the apprentices' involvement of the apprenticeship training were identified by the apprentices.

6.2.18 Occupational skills

It seemed very hard to ascertain that the apprentices were equipped with all the required occupational skills in the selected enterprises. It was due the fact that there were conditions that could adversely affect the apprentices' acquisition of occupational skills.

6.2.19 Qualities of supervisors

There were some indications for the presence of some weak professional qualities of supervisors that have implications for apprentices' training.

6.3 Recommendations

The need for skillful manpower is crucial for Ethiopia. In the last few years, the country has shown remarkable economic achievements. In line with this, its development plans are now requiring skillful persons to sustain the achievements. The recently introduced CBT at the TVET colleges are expected to satisfy the country's middle level manpower needs by providing graduates with employable skills. Effective implementation of this kind of training program requires the active involvement of all actors. However, the current research has shown the presence of some challenges among its actors; TVET Agency, TVETCs, Trade Unions and Enterprises. Unless these challenges are met, the future apprenticeship training program will be at stake. This, in turn, can affect the quality of skillful graduates to the country's economy.

The challenges are impediments to the successful implementation of the future apprenticeship training program in the Addis Ababa city. To facilitate the successful implementation of the apprenticeship training program, all stakeholders of TVET in the city should exert their efforts. Thus, based on the findings of the research and its objectives, the following recommendations are proposed;

1/ To increase the motivational level of apprentices it is recommended;

Special vocational course

Special vocational courses that may orient apprentices' with the world of work should be designed and offered to TVET college trainees prior to the launching of the apprenticeship training.

Assessment

Apprentices' assessment at the enterprises should be based on continuous assessment scheme. Parallel with this, supervisors should be provided with the necessary training for its implementation.

Joint evaluation

With all the challenges identified by each stakeholder, it may seem difficult to gain the right kind of knowledge from the apprenticeship training program. Thus, supervisors and apprentices should critically evaluate the process in order to implement it in a better way.

2/ To strengthen enterprises in relation to the provision of apprenticeship training it is recommended;

Opportunities

Opportunities should be created to all service providers or manufacturing enterprises in order to discuss the implementation of apprenticeship training program. This may create a feeling of responsibility and belongingness.

Awareness program

Awareness programs on TVET strategy in general and the implementation of apprenticeship training in particular should be arranged by the Agency to enterprises.

Apprenticeship training program

The achievement of apprenticeship training program rests on good communication between the enterprises and TVET colleges. To accomplish this task, successful communication strategies should be designed and implemented between these two partners.

Participatory method

There should be participatory method of designing and implementing the apprenticeship training program between enterprises and TVET colleges.

Participation of enterprises

Research should be conducted on how to raise the participation of enterprises in the implementation of the apprenticeship training program in the city.

TVET colleges and enterprises

The TVET colleges in the city should jointly assess the capacities of enterprises to determine which of them can provide apprenticeship training for their trainees.

3/ To address the challenges of apprenticeship training program it is recommended;

Policy

The TVET Agency should set out a policy regarding the training and evaluation of apprentices at the enterprises not to be handled by supervisors who have not taken the national CoC certification.

Monitoring and evaluation

The implementation of the apprenticeship training at the enterprises should be monitored and evaluated regularly with a joint program with enterprises and TVET colleges.

Office of apprenticeship

Special office of apprenticeship should be established under the TVET Agency of the city to register apprentices and issue certifications that successfully complete the apprenticeship training programs at the enterprises.

Federal legislative act

The Federal legislative act for the establishment of Trade Unions should be revised in order to increase the participation of these enterprises regarding the implementation of the apprenticeship training.

Mass media

The mass media, on its part, should play a role in creating awareness among the public by disseminating the necessary information.

Investment of time

Apprenticeship training requires a significant investment of time and money on the part of the enterprises and TVET providers. Hence, to alleviate some of the burdens, the city council should take measures on the ways to allocate budget for the program. It should also encourage some of the outstanding hosting enterprises by introducing some incentive schemes.

4/ To increase the professional qualities of supervisors at the enterprises it is recommended;

Colleges and enterprises

Colleges and enterprises should pay attention to some of the factors of motivation of training, conditions for acquisition of occupational skills and for the improvement of some of supervisors' professional qualities that could potentially affect the participation of the apprentices in the program.

Training opportunities

Training opportunities should be organized to supervisors in order to uplift their training expertise.

5/ To increase the skill acquisition of the apprentices at the enterprises it is recommended;

Status of facility

The Agency should carefully assess the facilities status of both public and private TVET colleges of the city in order to introduce inter college apprenticeship training programs among the colleges.

Apprenticeship legislation

There should be apprenticeship legislation established by the City Council to foster better relation between business organization or enterprises and TVET providers.

6.4 Areas for further investigation

The researcher would like to suggest research interventions on the following problems:

- What factors affect the optimal participation of stakeholders in the implementation of the apprenticeship training program in Addis Ababa?
- What model of management should be adopted in TVETCs for the successful implementation of apprenticeship training?

REFERENCES

- AACC (2009) Proclamation Establishing the Addis Ababa City Administration Technical and Vocational Education and Training Agency. Proc No. 11/2009. Addis Ababa: Birhanena Selam Printing Press.
- ACBTSE (2009) Anbesa City Bus Transport Service enterprise-General Information. Addis Ababa: Birhanena Selam Printing Press. (Unpublished)
- Aggarawal, J. (2004) *Development and Planning of modern education.8th Ed.* Delhi: Vikas publishing house PTY LTD.
- Akoojee, S., Gewer, A. and McGrath, S.(eds.) (2005) *Vocational Education and Training in Southern Africa: A Comparative Research.* Cape Town: HSRC Press.
- Anamuah-Mensah, J., Asabere-Ameyaw, A. and Dennis, S.(2007) *Bridging the gap: Linking school and the world of work in Ghana.* Journal of Career and Technical Education, Vol. 23, No. 1, Fall, 2007 – Page 133.
- AU (2007) Strategy to Revitalize Technical and Vocational Education and Training (TVET) in Africa. In: Meeting of the Bureau of the Conference of Ministers of Education of the African Union, Addis Ababa, 29-31 May 2007. Addis Ababa: African Union, PP.5-16.
- Au,K. (ed.) (1990) *Changes in views of interactive comprehension instruction in Moll Vygotsky and Education* (PP.271-286). Cambridge: CUP.
- Bandura, A. (1977) *Social Learning Theory.* New Jersey: Englewood Cliffs, Prentice-Hall.

- Bergh, Z. and Theron, A. (eds.) (2006) *Psychology in the work context*. 3rd ed. Cape Town: Oxford University Press Southern Africa (Pty) Ltd.
- Bernstein, D., Penner, L., Clarke-Stewart, A. and Roy, E. (2006) *Psychology*. 7th ed. Boston: Houghton Mifflin Company.
- Best, J. and Kahn, J. (2003) *Research in education*. 9th ed. New Delhi: Prentice-Hall of India.
- Bless, C., Higson-Smith, C. and Kagee, A. (2006) *Fundamentals of social research methods: An African perspective*. 4th ed. Cape Town: Juta and company Ltd.
- Bowman, J., West, J., Berman, E., and Wart, M. (2004) *The Professional Edge competencies in public service*. New Delhi: Prentice-Hall of India Pvt. Ltd.
- Brockmann, M., Clarke, L and Winchb, C. (2010) *The Apprenticeship Framework in England: a new beginning or a continuing Sham?* Journal of Education and Work, 23(2), PP.111-127.
- CAF (2004) *Accessing and Completing Apprenticeship Training in Canada: Perceptions and Barriers*. Toronto: CAF.
- CalSWEC (2004) *Training Evaluation Framework Report*. Available from: <http://Calswec.berkely.edu/calswec/MacroEvalFrameworkReprotFinal> [Accessed 10 March.2011].
- Cantor, J. (1997) *Cooperative Apprenticeships: A School-to-Work Handbook*. Lancaster: Technomic Publishing Company Inc.
- Carlson, N., EdMay, W., Loertscher, R. and Cobia, C. (2003) *Apprenticeship: Applications in Adult education*. Journal of Adult Education, 32(1), PP.29-43

Cedefop (1999) *Vocational Education and Training in Norway*. Luxembourg: Publications Office of the European Union.

_____ (2005) *Focus on vocational education and training in the Czech Republic: National profile*. Luxembourg: Publications Office of the European Union.

_____ (2007) *The German vocational education and training (VET) system. 7th ed.* Luxembourg: Publications Office of the European Union

_____ (2009) *Modernizing vocational education and training fourth report on vocational education and training research in Europe: Synthesis report*. Luxembourg: Publications Office of the European Union.

_____ (2009a) *Modernizing vocational education and training fourth report on vocational education and training research in Europe: Background report. (Volume 1) Synthesis report*. Luxembourg: Publications Office of the European Union.

_____ (2009b) *Modernizing vocational education and training fourth report on vocational education and training research in Europe: Background report. (Volume 3) Synthesis report*. Luxembourg: Publications Office of the European Union.

_____ (2010) *Abridge to the future: European policy for vocational education and training 2002-10*. Luxembourg: Publications Office of the European Union.

_____ (2010a) *Skills for green jobs: European Synthesis Report*. Luxembourg: Publications Office of the European Union.

_____ (2011) *Work program 2011*. Luxembourg: Publications Office of the European Union.

_____ (2011a) *The benefits of vocational education and training (Research paper. No.10)*. Luxembourg: Publications Office of the European Union.

- _____ (2011b) *Learning while working: Success stories on workplace learning in Europe*. Luxembourg: Publications Office of the European Union.
- Choy, S. and Delahay, B.(2009) University-Industry partnership for pedagogy: Some principles for practice. In: Proceedings of: 16th World Association for Cooperative Education Conference, June 23-26, 2009, Vancouver, Canada.
- Conley, A., and Karabenick, S. (2006) Construct Validity Issues in the Measurement of Motivation to Learn. In: Biennial meeting of the Society for Research on Adolescence, Francisco, March 2006, The University of Michigan, PP.1-23.
- Corbin, J. and Strauss, A.(2008) *Basics of Qualitative Research.3rded.* California: Sage Publications Inc.
- COTVET (2011) *From Prejudice to Prestige: Vocational education and training in Ghana*. Accra: Ghana.
- Coy, M. (ed.) (1989) *Apprenticeship: From theory to method and back again*. New York: State University of New York Press.
- Creswell, J. and Plano Clark, V. (2007) *Designing and Conducting mixed methods Research*. New Delhi: Sage Publication Inc.
- Daniel, G.(2007) A comparative research of apprenticeship training in private TVET institutions in A.A City Administration. Unpublished thesis (MA), Addis Ababa University.
- De Lary, C., Duncan, N and Swarth, L. (eds.) (2006) *Psychology: An introduction*. Cape Town: Oxford University Press.

- De Munck, B. Kaplan, S. and Soly, H. (eds.) (2007) *Learning on the Shop Floor: Historical Perspectives on Apprenticeship*. New York: Berghahn com.
- Dik, BJ 2006, "Strong Interest Inventory", in *Encyclopedia of Career Development*, SAGE, Thousand Oaks, CA, pp. 779-86, viewed 16 Mar. 2012.
- Dow,J.(2002) *The new vocationalism: A Deweyan analysis*. Unpublished dissertation, University of Florida.
- Doyle, B. and O'Neill, N. (2006) *Mentoring and Entrepreneurs: Shared Wisdom from Experience*. New Delhi: Prentice-Hall of India Pvt. Ltd.
- EC (2006) *Reforming Technical Vocational Education and Training in the Middle East and North Africa: Experiences and Challenges*. Luxembourg: Office for Official Publications of the European Communities.
- ECCSA (2010/11) *Ethiopian Technical Vocational Education and Training Directorate*. Addis Ababa: ECCSA, PP.71-135.
- Ellis,D.(2009) *From Master trainee to master employee.2nded*. Boston: Houghton Mifflin Harcourt publishing company.
- Engida, A. (2007) *Major factors affecting the implementation of apprenticeship training program*. Unpublished thesis (MA), Addis Ababa University.
- Entoto TVET college (1989) *The historical development of Entoto Academic, Vocational and Technical School/Unpublished/*. Addis Ababa.PP.115.
- Eseryel, D.(2002) *Approaches to Evaluation of Training: Theory and Practice*. *Educational Technology and Society*, 5(2) 2002, PP 93-97.

FDREDM (2008) Special Millennium issue: Special edition. Addis Ababa: MoD.

FDRE (2003) Chamber of Commerce and Sectorial Association Establishment Proclamation.
Proc No. 341/2003. Addis Ababa: Ethiopia.

FDRE (2004) TVET Proclamation. Pro No.391/2004 Addis Ababa: Ethiopia.

Field,S, Hoeckel, K., Troy R. and Moonhee, K. (2008) *Learning for Jobs: OECD Reviews of Vocational Education and Training*. Sydney: OECD.

Fredrickson, B., Loftis, G. and Nolen-Hoeksema, S. (2009) *Atkinson and Hilgard's: Introduction to Psychology.15thed*. London: Cengage Learning EMEA.

Freeman, F. (2006) *Theory and Practice of Psychological Testing*. Delhi: Surjeet Publishers.

Furlong,A(ed) (2009) *Handbook of youth and young adulthood: New perspectives and agendas*.
New York: Taylor and Francise e-library.

Gebremedhin, G. (2007) The status of apprenticeship training in government TVET colleges in A.A. City Administration. Unpublished thesis (MA), Addis Ababa University.

Gelesne, C. (1999) *Becoming qualitative researchers: An introduction.2nd ed*. New York: Addison Wesley Longman Inc.

Ghee, C.(2005)*Transition from school to work: Individual courses within social structure/Contemporary issues in education series/* Singapore: Marshall Cavendish International private Limited.

Girma, Z., Meharie, H. and Nigatu F.“The Ethiopian Journal of Education” *The training and placement of vocational secondary school teachers in Ethiopia._Vol.XV No.2* (1994).1-32.Institute of Educational Research. Addis Ababa University.

- Gregory, R.(1996)*Psychological Testing: History, Principles and Application.2nd ed.* Boston: Allyn and Bacon.
- Grieve, K., Deventer, V. and Mojapelo-Batka, M. (2005) *A student's A-Z of Psychology.* Lansdowne: Paarl Media Paarl.
- GTZ (2006) Implementation issues of diversified financing strategies for TVET. In: Proceedings of the International symposium on Implementation issues of diversified financing strategies for TVET. Nov. 20-21 2006, Addis Ababa.
- Haefeli, K.(2000) Vocational Education in Switzerland: Facts, figures and prospects. Available from:<http://www.nccte.com/events/profdevseries/20000810>[Accessed10 Oct.2009].
- Hipes, H. and Marinoni, A. (2005)Skilled Trades Mentoring. Benefits and Compensation Digest WEB EXCLUSIVES. Available from: www.ifebp.org [Accessed on 23/11/2011].
- Hippach-Schneider, U., Krause, M. and Woll, C. (2007) *Vocational education and training in Germany: Short description.* Luxembourg: Publications Office of the European Union.
- Hobbs, T. (ed) (1992) *Experiential Training: Practical Guidelines.* London: Mackays of Chatham PLC.
- Hodkinson, P., Sparkes, A. and Hodkinson, H.(1996) *Triumphs and Tears: Young people, Markets and the transition from school to work.* London: David Fulton Publishers.
- Hurlock, E. (1981) *Child development. 6th ed.* Tokyo: McGraw.Hill Inc. Kogakusha Ltd.

- Hyslop,E.(2000) *An assessment of the historical arguments in vocational education reform*.
Simon Fraser University: Vol.17,No.1, Electronic Journal.
- Johnson, B. and Christensen, L. (2004) *Educational Research: Quantitative, Qualitative and Mixed approach. 2nd ed.* New York: Pearson Education Inc.
- Johnson, B. and Christensen, L. (2008) *Educational Research: Quantitative, Qualitative and Mixed approach. 3rd.* California: SAGE Publications Inc.
- Kathrin, L. (2010) *Smooth Path or Long and Winding Road?: How Institutions Shape the Transition from Higher Education to work*. Opladen and Farmington Hills:
BudrichUni Press Ltd.
- Kis, V., Hoeckel K. and Santiago, P. (2009) *Learning for jobs OECD Reviews of Vocational Education and Training*. Mexico: OECD.
- Kumar,R.(2005) *Research methodology: A step-by-step guide for beginners.2nd ed.* New Delhi:
SAGE Publications.
- Kusek J. and Rist, R. (2004) *A Handbook for Development practitioners: Ten Steps to a Results-Based Monitoring and Evaluation System*. The World Bank: Washington, D.C.
- Lave, J. and Wenger, E. (1991) *Situated Learning Legitimate Peripheral Participation*.
Cambridge. NY: Cambridge University Press.
- Leedy, P. and Ormrod,J.(2010) *Practical Research: Planning and Design.9th ed.* Boston: Pearson Education, Inc.
- Longman (2007) *Business English Dictionary: New Edition*. England: Pearson Education Limited

- Luecking, R.(2009) *The way to work: How to facilitate work experiences for youth in transition*. Maryland: Paul H.brookes Publishing Co.
- Mad, T. and Mothata, S.(eds.) (2000) *Critical Issues in South African Education-After 1994*. Cape Town: Juta and Company publishers.
- Maree, K.(ed.).(2007) *First Steps in Research*. Pretoria: Van Schaik Publishers.
- Maree, K., Ebersohn, L.(eds.) (2002) *Life skills and Career Counseling*. Cape Town: Heinemann Publishers (Pty) Ltd.
- Marshall, C. and Rossman, G.(2011) *Designing Qualitative research.5th ed*. California: SAGE Publications, Inc.
- Marshall, M.(1996) *Sampling for qualitative research*. *Family Practice*, Vol. 13, No. 6, PP. 522-525.
- Masri, W. (1994) *Vocational education: The way ahead*. Hong Kong: The Macmillan Press Ltd.
- Matthews,B. and Ross,L.(2010) *Research Methods: A practical guide for the social sciences*. London: Pearson Education limited.
- Maykut, P. and Morehouse, R.(2000) *Beginning qualitative research: A philosophical and practical guide*. London: Routledge Falmer, Taylor and Francis Inc.
- McCown, R., Driscoll,M., Roop, P., Roop,P. and McCown,R. (1999) *Educational Psychology: A Learning-Centered Approach to Classroom Practice.2nd ed*. Ontario: Prentice-Hall Canada Inc.
- McMillan, J. and Schumacher,S.(2010) *Research in Education: Evidence-Based Inquiry.7th ed*. New Jersey: Pearson Education, Inc.

- Misko, J. (2006) *Vocational education and training in Australia, the United Kingdom and Germany Informing policy*. Sydney: NCVER.
- Misko, J., Niguyen, N. and Saunders, J. (2007) *Doing an apprenticeship: What young people think*. Sydney: NCVER.
- MoE (2004) Report on the research of the existing technical and vocational education and training (10+3) program. Addis Ababa: MoE.
- MoE (2005) Education Sector Development Program III (2005/6- 2010/11). Program Action Plan (PAP). Addis Ababa: MoE.
- MoE (2007) Co-operative training handbook. Addis Ababa: MoE.
- MoE (2008) National Technical and Vocational Education and Training (TVET) Strategy. Addis Ababa: MoE.
- MoE (2010) Education Sector Development Program IV (ESDP) 2010/2011-2014/2015: Program Action Plan. Addis Ababa: MoE.
- Muller, W. and Gangl, M.(eds.)(2003) *Transition from education to work in Europe: The integration of youth into labor market*. New York: Oxford University Press Inc.
- NCVER (2011) Overview of the Australian apprenticeship and traineeship. Adelaide: NCVER, Report1, pp 1-70.
- NCVER (2011a) *The apprenticeship and traineeship system's relationships with the regulatory environment*. Adelaide: NCVER, Report 3, pp 1-91
- Olson, L.(1997) *The school-to-work revolution: How employers and educators are joining forces to prepare tomorrow's skilled workforce*. Massachusetts: Perseus Books Groups.

- Omondi, O.(2008) Building Construction Technicians Training: Its Relevance to the Modern construction Industry in Kenya: First International Conference on Construction in Developing Countries (ICCIDC-I).August 4-5, 2008, Karachi, Pakistan. PP 1-10.
- Patton, M.(2002) *Qualitative Research and Evaluation Methods*. 3rded. London: Sage publications Inc.
- Pham, N., Segers, M., and Gijsselaers, W.(2010) Understanding Training Transfer Effects from a Motivational Perspective, (Master of Business Administration (MBA) Business Leadership Review VII:III,PP.1-25.
- Phillips, J.(2004) *Handbook of Training Evaluation and Measurement Methods*.3rd ed. Mumbai: Jaico Publishing House.
- Punch, K. (2005) *Introduction to social research: Quantitative and Qualitative approaches* (2nd ed.). New Delhi: SAGE Publications Ltd.
- Rauner,F., Smith, E., Hauschildt, U. and Zelloth, H.(eds.)(2009) *Innovative Apprenticeships: Promoting Successful School-to-work Transitions*. New Brunswick and London: Transaction Publishers.
- RMCS (ed.)(2010) *For Modern Skilled Crafts*. Frankfurt: Agid Menges Rodgau.
- Robertson, I., and Wakefield, L.(2001).Evaluating strategies to improve flexible delivery in the workplace. A paper presented at the 9th Annual International Conference on Post-compulsory Education and Training held at Surfers Paradise on 3-5 December 2001.PP.1-8.
- Roscoe, S. and Willigies, B. (1980) Measurement of Transfer of Training. In: Roscoe, S.N(ed). *Aviation Psychology*, Iowa State University Press. PP 182-193.USA.

- Rusch, F. and Chadsey, J. (1998) *Beyond High School: Transition From to Work*. California: Wadsworth Publishing Company.
- Sarantakos, S. (1998) *Social Research*. 2nd ed. London: Macmillan Press Ltd.
- SDRTVC (2005) Yearbook. Addis Ababa. PP.19
- SDRTVC (2011) Selam Children's Village 25th Anniversary. Addis Ababa. PP.19
- Seyler,D., Holton, E., Bates,R., Burnett,M. and Carvalho, M. (1998) *Factors affecting motivation to transfer training. International Journal of Training and development*, (Blackwell Publishers Ltd. London: UK) 2(1),PP.1-16.
- Shaffer,D.,and Kipp,K.(2010) *Developmental Psychology: Childhood and Adolescence*.7th ed. California: Wadsworth, Cengage Learning.
- Simeoni, G. (2005) The role and function of apprenticeship training and cooperative education in British Columbia. Unpublished dissertation(PhD), University of South Africa.
- Simiyu, J.(2009) Revitalizing a Technical Training Institute in Kenya: A Case Research of Kaiboi Technical Training Institute, Eldoret, Kenya. Bonn: UNESCO-UNEVOC.
- Simons, H.(2009) *Case research in practice*. London: SAGE Publications Ltd.
- Skitmore,M. and Runeson,G.(2006) *Writing research reports*. Delhi: Mehra offset press.
- Smith, P. (2000) *Flexible delivery of apprentice training: Preferences, problems and challenges*. Journal of vocational education and training, 52(3), PP.483-503.

- South Africa Department of Labor Project (2008) South Africa Professions case research report: Artisans/trades. Cape Town: Human Sciences Research Council, PP.40-60.
- Tashakkori,A. and Teddlie,C.(2009)*Foundations of mixed method research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. California: SAGE publications,Inc.
- Tekeste, N. (1990) *The crisis of Ethiopia education: Some implications for nation-building*. Sweden: Uppsala University.
- TGE (1994) Education and Training Policy.EEP 86, Addis Ababa April 1994.
- Tremblay, D. and Le Bot, I.(2000) *The German Dual Apprenticeship System: An analysis of its Evolution and present Challenges*. Toronto (Ontario): York University Press.
- Turcotte, J. and Rennison, L. *The link between technology use, human capital, productivity and wages: firm-level evidence*. International Productivity Monitor, 2004, No 9, pp. 25-36.
- Tüzün, I. (2005) Journal of Commerce and Tourism. Education Faculty, No: 1, PP.144-156. Availabele from: <http://www.ttefdergi.gazi.edu.tr/makaleler/2005/sayi/> [Accessed 23 May.2011].
- UNDP (2010) *Summary, Human development report 2010(20th Anniversary Edition): The Real Wealth of Nations; Path ways to Human Development*. New York: UNDP.
- UNESCO and ILO (2002) *Technical and Vocational Education and Training for the Twenty-First Century: UNESCO and ILO Recommendations*. Geneva: UNESCO.
- UNESCO (1973) *Prospects: Secondary education, training and employment*. Quarterly review, Vol.III No 3. Paris: UNESCO.

- UNESCO (1984) *Studies and surveys in comparative education: Education and the world of work*. Geneva: UNESCO.
- UNESCO (1992) *Prospects*. Quarterly review, Vol. XXII, No.2 (82). Paris: UNESCO.
- UNESCO (1993) *Vocational training: Analysis of policy and modes, Case studies of Sweden, Germany and Japan*. Paris: UNESCO.
- UNEVOC (1999) *Vocational Education and training in Europe on the Threshold of the 21st Century*. Berlin: UNEVOC.
- UNISA (2012) myReg2012-masters-doctoral. Available from: <http://www.unisa.ac.za> [Accessed 18 July 2012].
- Virtanen, A. (2008) *Trainees' experiences of workplace learning in Finnish VET*. *European journal of vocational training*. No 44(2), pp 199-211.
- Vos, A., Strydom, H., Fouche, C. and Delpont, C. (2011) *Research at the grass roots: For the social sciences and human service professions*. 4th ed. Pretoria: Van Schaik publishers.
- Wallace, M. and Wary, A. (2011) *Critical reading and writing for postgraduates*. 2nd ed. California: SAGE publishers.
- Weiten, W. (2008) *Psychology: Themes and Variations*. 8th ed. California: Wadsworth Cengage Learning Press.
- World Bank (2004) *Monitoring and Evaluation: Some Tools, Methods and Approaches*. The World Bank: Washington, D.C.

Yimam, A.(2008) Factors that impede implementation of apprenticeship training in South Wollo TVET colleges, Amhara Regional State. Unpublished thesis (MA), Addis Ababa University.

Young, L. and Ross. M.(1965) *Expanded program of technical assistance: Ethiopia; vocational training and technical education*. Paris: UNESCO.

Ziderman, A. (2001)*Financing Vocational Training to Meet Policy Objectives: Sub-Saharan Africa*. Bar Ilan University (Israel): World Bank.

LIST OF ANNEXURES

ANNEXURE 1: Interview questions for an outcomes based training process expert at TVET Agency

GENERAL INFORMATION

Name of the Directorate_____

Title of the interviewee _____

Job position_____

Service year with the current position: _____

Qualification_____

Sex_____

OPEN-ENDED QUESTIONS

- ❖ How do you describe the implementation status of the apprenticeship training process in the Addis Ababa Administrative region?
- ❖ What difference is there between the responsibilities of Outcome Based Core Process and Industry Extension Core Process regarding the implementation of apprenticeship training the Addis Ababa Administrative region?
- ❖ Who follows the implementation of apprenticeship training at the enterprises?
- ❖ What challenges are there in the implementation of apprenticeship training process in the Addis Ababa Administrative region?
- ❖ What measures to be taken to alleviate the implementation of apprenticeship training process in the Addis Ababa Administrative region?

ANNEXURE 2: Interview questions for apprenticeship training coordinator at the TVET Agency

GENERAL INFORMATION

Title of the interviewee _____

Job position _____

Service year with the current position: _____

Qualification _____

Sex _____

I- OPEN-ENDED QUESTIONS

- ❖ How do you explain the recruiting, screening and assignment process of the apprentices at the enterprises?
- ❖ How does the monitoring process of the apprenticeship training program take place at the enterprises?
- ❖ Can you explain me the law applied to the implementation of apprenticeship training program in the Addis Ababa Administration? Which law do you follow, either the regional or federal, to implement the apprenticeship training program at the enterprises in the Addis Ababa Administration Region?
- ❖ In your opinion, how do you describe the implementation process of the apprenticeship training program in the Addis Ababa Administration Region? What problems does it have? How did you discover the problems?
- ❖ How do you explain the communication system established between TVET colleges and enterprises in relation with the apprenticeship training program?
- ❖ What challenges were reported to you by TVET colleges and enterprises during the implementation of apprenticeship training?
- ❖ What measures did your office take to solve the problems you mentioned?
- ❖ How do you explain the status of the implementation process of the apprenticeship training in the Addis Ababa Administrative Region?

ANNEXURE 3: Interview questions for monitoring and evaluation expert at TVET Agency

GENERAL INFORMATION

Title of the interviewee _____

Job position _____

Service year with the current position: _____

Qualification _____

Sex _____

OPEN-ENDED QUESTIONS

- ❖ Can you explain me which of the duties and responsibilities, delegated to the Agency, your support sub-process section oversees? Does it do so regarding apprenticeship training?
- ❖ Which department or process owner is responsible for the implementation of apprenticeship training? Why?
- ❖ Can you explain how you monitor and evaluate the implementation of apprenticeship training?
- ❖ Which Monitoring and Evaluation tools did you find more applicable for apprenticeship training?
- ❖ What challenges did you face during the implementation of apprenticeship training, up to this time?
- ❖ What do you suggest to solve the implementation problems of apprenticeship training?

ANNEXURE 4: Interview questions for TVET college leaders

GENERAL INFORMATION

Title of the interviewee _____

Job position _____

Service year with the current position: _____

Qualification _____

Sex _____

I- OPEN-ENDED QUESTIONS

- ❖ How is the TVET training program going on in your college?
- ❖ What challenges do you have in training students in the classroom?
- ❖ How do you solve this problem?
- ❖ What challenges do you have in training students in the practical fields?
- ❖ How do you solve this problem?
- ❖ How are you implementing apprenticeship training program in collaboration with the enterprises?
- ❖ What problems did you face during the implementation process of the apprenticeship training program in the enterprises?
- ❖ How did you solve the problem?
- ❖ What experience did you grasp for a better future apprenticeship training program?

ANNEXURE 5: Interview questions for apprenticeship training coordinators at the TVET colleges

GENERAL INFORMATION

Name of the college _____

College type: Private _____ Public _____

Level of training _____

Length of apprenticeship training _____

Apprenticeship program per week _____

Title of the interviewee _____

Job position _____

Service year with the current position: _____

Qualification _____

Sex _____

I- OPEN-ENDED QUESTIONS

- ❖ What procedure do you follow to assign apprentices at enterprises for apprenticeship training?
- ❖ How do you begin the apprenticeship training program in your TVET College?
- ❖ How do you recruit, screen and assign apprentices at the enterprises? Can you explain me the procedure that you follow?
- ❖ Which levels of apprentices are assigned at enterprises for apprenticeship training program? In what field of research?
- ❖ How long does the training last?
- ❖ Do you limit the number of apprentices you assign at the enterprises? What reasons are there behind?
- ❖ How do you evaluate the performance of the apprentices assigned at enterprises for apprenticeship training?
- ❖ How do you communicate with the enterprise regarding apprenticeship training?

- ❖ Do you set a program for apprenticeship training? Can you explain the details of the program?
- ❖ Do you prepare plan for apprenticeship training program? How do you prepare it? Can you explain it?
- ❖ Do you assign a person to follow the apprenticeship training at the college level? How do you select and assign him/her for this purpose?
- ❖ What problems do you observe, most of the time, during the implementation of apprenticeship training at the enterprises?
- ❖ How do you address the identified problems to your stakeholders? What measures do the take?
- ❖ Which problems were reported most of the time?
- ❖ What measure do you suggest to alleviate the problem? By whom? How?

ANNEXURE 6: Interview questions for college trainers

GENERAL INFORMATION

Title of the interviewee _____

Job position _____

Service year with the current position: _____

Qualification _____

Sex _____

OPEN-ENDED QUESTIONS

- ❖ How do you describe the implementation status of the apprenticeship training process in the Addis Ababa Administrative region?
- ❖ How do you recruit and assign apprentices at the enterprises?
- ❖ How do you follow the implementation of apprenticeship training at the enterprises?
- ❖ How do you select enterprises for apprenticeship training?
- ❖ How do you start implementing apprenticeship training after you have selected the enterprises?
- ❖ Who evaluates apprentices' performance during the apprenticeship training at the enterprises?
- ❖ What are the challenges of apprenticeship training process in your college?
- ❖ What solution do you propose to solve the problems mentioned?

ANNEXURE 7: Interview questions for Supervisors

GENERAL INFORMATION

Name of the enterprise_____

Level of training_____

Length of apprenticeship training_____

Apprenticeship program per week_____

Ownership arrangement of the enterprise_____

The main activity of the enterprise_____

Position of the interviewee in the enterprise_____

Number of apprentices participating in apprenticeship training in your enterprise:

❖ Level I: M _____ F _____

❖ Level II: M _____ F _____

❖ Level III: M _____ F _____

❖ Level IV: M _____ F _____

I- OPEN-ENDED QUESTIONS

- ❖ How do you provide apprenticeship training to the apprentices?
- ❖ To which level of apprentices do you provide apprenticeship training? In what field of research?
- ❖ Is there a procedure you follow before the apprenticeship training begins? Can you explain the details of it?
- ❖ How do recruit, screen and select apprentices and supervisors in your enterprise for the apprenticeship training program?
- ❖ What special rooms do you have for apprentices?
- ❖ How do you limit the number of apprentices you admit? Why?
- ❖ How did you start to implement apprenticeship training in your enterprise?
- ❖ How do you organize any resource to implement apprenticeship training in your enterprise?
- ❖ How do you evaluate the performance of the apprentices?

- ❖ How do you record and notify the achievements of the apprentices in your enterprise?
- ❖ How do you communicate the achievements of the apprentices with the TVET College?
- ❖ How do you explain budgetary problem you face when implementing apprenticeship training in your enterprise? How serious is the problem?
- ❖ How do you set an implementation program for apprenticeship training?
- ❖ How do you address training materials problem?
- ❖ What objectives of apprenticeship training did you set for this and last year that have not yet achieved the expected aims?
- ❖ Can you state these objectives?
- ❖ Can you explain the reason why the expected aims have not been achieved so far, and which approach is being used to make a solution for that?
- ❖ What measure do you take to alleviate:
 - budgetary problem?
 - time problem?
 - training materials problem?
 - With whom should you work to solve each of the above problems? Can you explain?
- ❖ What is the number of TVET graduates currently employed in your enterprise?
- ❖ From which vocational fields and levels do you mostly employ apprentices?
- ❖ Which level of apprentices' best fit the skill requirements for the positions in your enterprise?
- ❖ What are the greatest challenges you face when implementing apprenticeship training?
- ❖ How frequently do you cooperate with TVET Colleges to discuss challenges of apprenticeship training?
- ❖ How important is the cooperation for your enterprise?
- ❖ What do you think is the best way to cooperate with stakeholders on implementing apprenticeship training?
- ❖ What actions should stakeholders take in order to improve the implementation of apprenticeship training?
- ❖ What is the impact of the TVET policy on the enterprise (regarding class size, supervisors' credential, curriculum, etc?)

ANNEXURE 8: Interview questions for apprentices

GENERAL INFORMATION

Field of research _____

Level _____

Sex _____

Age _____

Name of the college _____

The term of apprenticeship training _____

Apprenticeship training starting time _____

Apprenticeship training ending time _____

Apprenticeship program per week _____

I- QUESTIONS ABOUT APPRENTICES MOTIVATION

- ❖ What do you think is the reason for organizing apprenticeship training in this enterprise?
- ❖ In your opinion, how can apprentice understand the objectives of apprenticeship training in this enterprise?
- ❖ What makes you motivated to be trained in apprenticeship training in this enterprise?
- ❖ Did you come to this enterprise/for apprenticeship training/by chance or choice?/ Explain it?
- ❖ Are there things you like and dislike in this enterprise? What are they?
- ❖ What things add to your satisfaction when you take part in the apprenticeship training in this enterprise?
- ❖ What particular tasks encourage or discourage you to perform at the enterprise?
- ❖ What particular tasks are you performing practically in the enterprise?
- ❖ What goals did you set when you come in this enterprise?
- ❖ What reasons have you set for participating in the apprenticeship training activities?
- ❖ Which factors of the following, specifically, motivate you to be trained in this enterprise?
Can you elaborate them?
 - ❖ Is it due to your own interest, if so how do you explain?

- ❖ Is it because of the existence of positive attitude by the ‘people’ in the enterprise, if so which people are they? And how do you explain their behavior?
- ❖ Is it because the enterprise equips with special competence of the occupation, if so how do you explain?
- ❖ Is it due to external motivators (availability wage, material incentive, etc), if so how do you explain them?

II- QUESTIONS ABOUT SKILLS PROVIDED TO APPRENTICES

Please pay attention to the following statement, in order to respond to the subsequent questions. As it may be recognized, knowledge can be described as the information an apprentice has gathered in the TVET colleges. Skill can be explained as the ability of the apprentice to apply to the tasks assigned to him/her during the apprenticeship training program in the enterprises. Thus:

- ❖ Is the enterprise equipped in accordance with the occupational requirements? Explain it?
- ❖ What new knowledge has the training in the enterprise provided you as compared to your college? Can you describe the kind of knowledge you gained?
- ❖ What new skill set has the training in the enterprise provided you as compared to your college? Can you describe the kind of skill you gained?
- ❖ How does the enterprise arrange you this kind of program?
- ❖ What negative attitudes, of the job you chose, has the training in the enterprise helped you to change as compared to your TVET College? Can you describe the change?
- ❖ What new knowledge do you expect the enterprise to add you in the future?
- ❖ What new skill do you expect the enterprise to equip you in the future?
- ❖ What new attitude do you expect the enterprise to change in the future?
- ❖ How should the enterprise organize this kind of skill development program?
- ❖ What weaknesses of the enterprise should be improved in the future for a better implementation of apprenticeship training?

III- QUESTIONS ABOUT PROFESSIONAL QUALITIES OF SUPERVISORS

- ❖ Which of the following ethical/unethical characters of supervisors is dominant during the apprenticeship training program in this enterprise?

- ❖ Providing opportunities for apprentices' observation of the occupation, explain it?
- ❖ Evaluating apprentice performance, explain it?
- ❖ Providing technical advice to the apprentice, explain it?
- ❖ Showing role model in the enterprise, explain it?
- ❖ Providing personal advice, explain it?
- ❖ Exchanging grades for money or sexual favors, explain it?
- ❖ Grading is fair and objective and free from bias, explain it?
- ❖ Using language that some apprentices might find distasteful, explain it?
- ❖ Discussing unrelated topics, explain it?
- ❖ Preparing himself/herself for the apprenticeship training, explain it?
- ❖ Expressing ideas upset some apprentices, explain it?
- ❖ Handling problematic behavior without embarrassing an apprentice, explain it?
- ❖ Feeling secure if an apprentice tells something in confidence, explain it?
- ❖ Showing sign of romantic relationship with an apprentice, explain it?
- ❖ Resolving the apprentice's problem, explain it?
- ❖ Making apprentices' feel uncomfortable, explain it?
- ❖ Showing bias of gender or sexual orientation, explain it?
- ❖ Referring to an apprentice's ethnicity, explain it?
- ❖ Providing mentoring service to all apprentices equally, explain it?
- ❖ Coming to training place on time, explain it?
- ❖ Taking apprentices' attendance regularly, explains it?
- ❖ Showing socially interactive behavior with the apprentices, explain it?
- ❖ Showing unfair treatment of apprentices, explain it?
- ❖ Lacking skill of the occupation, explain it?
- ❖ Using limited number of training methods, explain it?
- ❖ Expressing negative attitude toward the occupation, explain it?
- ❖ Lacking of professional devotion, explain it?
- ❖ What other ethical qualities of the supervisors you want to mention? Explain?

IV. QUESTIONS FOR FOCUS GROUP DISCUSSION WITH APPRENTICES

- 1/ How do you explain your interest toward apprenticeship training in general?

- 2/ How do you describe the current status of apprenticeship training process in the enterprise you are assigned?
- 3/ How are the supervisors assisting you to gain knowledge, skill and attitude in the occupation you chose?
- 4/ What problems do you encounter during the process of apprenticeship training in the enterprise you are assigned?
- 5/ Which of these problems have negative effects on your future career?
- 6/ How do you evaluate the apprenticeship training process in the enterprise you are assigned?
- 7/ What measures should be taken to improve the apprenticeship training process in the enterprise you are assigned?

ANNEXURE 9: Observation format

GENERAL INFORMATION

Name of the enterprise _____

Enterprise type: Private _____ Public _____

Level of training it offers for apprentices _____

Length of apprenticeship training _____

Apprenticeship program per week _____

S.No	Facilities/Services/Training process observed	Availability				
		5	4	3	2	1
1.	Accommodation for meetings to discuss relevant apprenticeship training matters					
2.	The enterprise use of notice boards					
3.	Reserved space in order to handle disciplinary matter with the supervisor or to discuss other confidential matters with apprentice					
4.	Supervisors provide feedback to the apprentices					
5.	Supervisors apply the right procedure of training evaluation					
6.	Supervisors mentor each apprentices frequently					
7.	The enterprise established first aid facilities and services					
8.	The enterprise established communication system with the enterprise					
9.	Relevant data of each apprentice is systematically recorded in the enterprise.					
10.	Code of practice for workplace facilities is explained to the apprentices					
11.	Code of practice for personal protective clothing and equipment is explained to the apprentices					
12.	Occupational Health Service/OHS/ in the workplace is provided to apprentices					
13.	Supervisors use attendance format all the time					

14.	Supervisors method of training to achieve apprenticeship objectives is explained					
15.	Supervisor and apprentice interact in the workplace					
16.	Apprentices involve in the practical training					
17.	Supervisors show interactive skill					
18.	Supervisors have leading skill					
19.	Supervisors motivate the apprentices					
20..	Supervisors manage the workshop situation					
21.	Supervisors apply participatory training methodologies					
22.	The enterprise provide information in an appropriate form					
23.	There is an adequate supply of clean drinking water in the enterprise					
24.	There is washing facility in the enterprise					
25.	There is toilet facility in the enterprise					
26.	There are rest areas in the enterprise					
27.	There are facilities for eating in the enterprise					
28.	There are facilities Change rooms in the enterprise					
29.	There are facilities for personal belongings in buildings or structures for the apprentices in the enterprise					
30.	There is shelter while weather conditions make work unsafe for the apprentices					
31.	There is consultation program with apprentices in the enterprise					
32.	Training is provided on how to use personal protective equipment to the apprentices					
33.	Training on risk reduction through personal protective equipment is provided to the apprentices					

The rating scale: 5= Excessively available, 4= Sufficiently available,

3= Moderately available, 2= Available, 1= Unavailable

ANNEXURE 10: Presentation of Interview Transcripts

Table 1: Interview Transcripts obtained from an Outcome Based Training Expert at TVET Agency

/19 March 2012 (8:30-9:30AM)/

INTERVIEW QUESTIONS	RESPONSES	CODE
How do you describe the implementation status of the apprenticeship training process in the Addis Ababa Administrative region?	I believe that the apprenticeship training is going on somewhat smoothly in most of the city's TVET colleges. The current apprenticeship training has brought an end to most of the problems reflected during the early times. Besides, it has brought all the actors together: college deans, industry, apprentices and supervisors.	<ul style="list-style-type: none"> • View on the current implementation status of APT/Apprenticeship Training/ • There are opportunities for APT implementation-partnership
What differences are there between the responsibilities of Outcome Based Core Process and Industry Extension Core Process regarding the implementation of apprenticeship training of the Addis Ababa Administrative region?	Industry Extension focuses on the activities of micro enterprises. It provides short term and practical training to apprentices. It can be used for apprenticeship training by providing opportunities to the apprentices. Moreover, when applied on apprenticeship training, it entails many advantages; it gets the opportunity to use apprentices' labor and it in turn provides ground for apprentices training. However; the Outcome Based Core Process plays major roles in relation to apprenticeship by coordinating and giving the necessary support with manufacturing and service giving institutions and TVET colleges. Thus, both core processes have stake on apprenticeship training program.	Both can be used as options for implementing apprenticeship training program
Who follows the implementation of apprenticeship training at the enterprises?	In collaboration with the TVET Colleges, we tried to assess the problems of the apprenticeship training with the assumption to furnish some important information. We, thus, tried to discover the problems and the potential supporting enterprises for our future plans. We did not, in fact, finalize this report. This assessment program created, to both Agency and TVET colleges, the opportunity to form partnership with the enterprises and identify some of the problems that impeded its implementation. It also reminded us the procedure for monitoring and evaluating the program that should take place at TVET Colleges.	TVET Colleges, as main actors, are expected to implement APT
What challenges are there in the implementation of apprenticeship training process in the Addis Ababa Administrative region?	We noticed a lot of problems regarding trainers, trainee and supervisors. They lack commitment or devotion. Most of the time colleges focus on few enterprises for apprenticeship training instead of searching other enterprises. Besides, there is no regular follow-up on the part of colleges.	<ul style="list-style-type: none"> • Lack of commitment on the part of trainers, trainees and supervisors • Lack of regular follow-up • Problem of getting multi hosting enterprises

<p>What measures to be taken to alleviate the implementation problems of apprenticeship training processes in the Addis Ababa Administrative region?</p>	<p>To solve some of the problems I mentioned earlier, I recommend that colleges should not be in hurry to let trainees to graduate before they sit for CoC. I think this kind of regulation will pose a restriction not to neglect the value of the apprenticeship training program. In line with this, awareness programs for enterprises, trainers and educational leaders, at the various levels, should be arranged by the Agency.</p>	<ul style="list-style-type: none"> • Measure by the Agency- awareness program to all stakeholders • Special measure by TVET Colleges- graduation after CoC
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Table 2: Interview Transcripts obtained from Apprenticeship Training Coordinating Expert at TVET Agency

/20 March 2012 (3:30-4:30PM)/

INTERVIEW QUESTIONS	RESPONSE	CODE
How do you explain the recruiting, screening and assignment processes of the apprentices at the enterprises?	We do not take part in the recruiting, screening and assigning tasks of the apprentices at the enterprises. It is the sole responsibility of each TVET college. Each college has its own autonomy in this regard. Besides, as far as a trainee is registered in a college, he has to take part in the apprenticeship training. It is his/her obligation. This is due to the fact that the nature of the training requires each trainee to participate in both practical (in the enterprises) and theoretical (in the TVET providers) training programs. It is thus an essential condition for all trainees to go through this system. Hence, there is no need for us to be engaged in recruiting, screening and assigning apprentices to enterprises.	The Agency does not assign apprentices to enterprises
How does the monitoring process of the apprenticeship training program take place at the enterprises?	As far as I know, each trainer/instructor, in each college is expected to supervise his own trainees during the apprenticeship training program. To this end, he/she should set a regular program to observe apprentices. He/she is expected to monitor the apprenticeship training process that takes place at the enterprises. However, in our part, we conducted a survey that aimed at investigating the problems of apprenticeship training. We have discovered some problems that could affect the implementation of the apprenticeship training. We did not yet complete the report at this time but we have an intention to hold another workshop with our stakeholders based on the findings of the survey.	<ul style="list-style-type: none"> • The Agency does not directly monitor • It discovered APT problems through survey
Can you explain me the law applied in the implementation of apprenticeship training program of the Addis Ababa Administration? Which law does you follow, the regional or federal, to implement the apprenticeship training program at the enterprises in the Addis Ababa Administration Region?	I can't refer you any legislation, either from the federal or from the region, on apprenticeship training. But, I believe there should be. But I, including some stakeholders, think that providing apprenticeship training is a social obligation. Thus, every enterprise should provide this kind of training program to all trainees in the TVET colleges.	The interviewee was not aware of the presence of APT legislation
In your opinion, how do you describe the implementation process of the apprenticeship training program in the Addis Ababa Administration Region? What problems does it have? How did	I noticed some problems. I discovered these through a survey research that took place last year. Some groups of experts in the Agency, including myself, participated in the survey research that investigated the implementation problems of the apprenticeship training. It was discovered that apprenticeship training has some implementation problems. In general, I believe that	<ul style="list-style-type: none"> • The interviewee could not specify APT problems • What does "Good start" mean?

you discover the problems?	apprenticeship training in the City is in a “good start”. It has attracted the attention of TVET Agency and the city administration too.	
What challenges were reported to you by TVET colleges and enterprises during the implementation of apprenticeship training?	I noticed some challenges: lack of awareness on the part of stakeholders, assigning apprentices wrongly at the enterprises, offering unfair grades to apprentices, incapable of mentoring apprentices and lack of feedback.	Challenges of APT implementation: <ul style="list-style-type: none"> • Lack of awareness • Assigning apprentices wrongly • Offering unfair grades • Incapable of mentoring • Lack of feedback
What measures did your office take to solve the problems you mentioned?	With the help of the City government, we tried to arrange awareness program. I think it was the right measure during that time. However; it did not continue.	Solution to the challenges: <ul style="list-style-type: none"> • Preparing one time awareness program
How do you explain the status of the implementation process of the apprenticeship training in the Addis Ababa Administrative Region?	I believe it has some problems. But, even if that is the case, I can say it is in a “good start”.	<ul style="list-style-type: none"> • Recognized APT’s problems but did not mention • He described its current status as “good start”.

Table 3: Interview Transcripts obtained from Monitoring and Evaluation Experts at TVET Agency

/22 March 2012(2:30-3:30 PM)/

INTERVIEW QUESTIONS	RESPONSES	CODE
Can you explain me which of the duties and responsibilities, delegated to the Agency, your support sub-process section oversees? What does it do regarding apprenticeship training?	I am working on Monitoring and Evaluation support service sub-process section of the TVET Agency. The sub-core process I am leading is obliged to monitor and evaluate all core processes in the Agency, TVET Colleges and sub-city TVET Offices. It is a very young. It has spent only six months since its establishment. It oversees the implementation of apprenticeship training across all the sub-cities in the Region.	<ul style="list-style-type: none"> • He reported the presence of M and E section in the Agency. • APT is one duty to be monitored and evaluated.
Which department or process owner is specifically responsible for the implementation of apprenticeship training? Why?	By taking the existing situation into consideration, I can say the implementation of apprenticeship training is the responsibility of an Outcome Based Training Core Process.	<ul style="list-style-type: none"> • Outcome Based Training Core Process is directly responsible for APT implementation.
Can you explain how you Monitor and Evaluate the implementation of apprenticeship training?	As I mentioned above, we don't monitor and evaluate since the task is left to an outcome based training core process of the Agency.	<ul style="list-style-type: none"> • M and E section does follow up APT implementation.
Which Monitoring and Evaluation tools did you find more applicable for apprenticeship training?	Monitoring and Evaluation activities are carried out by using check lists, observing the implementation at the work site, holding discussions and compiling performance reports. The Monitoring and Evaluation support sub process is using two or more of the above tools. At the same time, we monitor and evaluate to provide support service.	<ul style="list-style-type: none"> • He did not answer this question
What challenges have you faced during the implementation of apprenticeship?	I can answer with respect to my job. As you know, when a new model is introduced, constraints or barriers also grow up with it and began to resist more than before, especially in developing countries. However, the outcome and impact of the acquired skills and knowledge could be better than the previous time. Along with this, I noticed awareness problems of apprenticeship training on the part of owners of the industries and the trainees. Lack of commitment on the part of trainers, absence of means of transportation (that can take from the industries to the colleges) and the need to provide insurance service for the trainees are some of our challenges at this time. Besides, close follow up of the industries by the trainers while the attachment program is on progress is also another challenge of the program at the industries. Lack of communication system; failure to use innovations, improved new findings, discoveries, and creativities are also the other challenges.	<p>Challenges of APT implementation:</p> <ul style="list-style-type: none"> • There is awareness problem on the part of industry owners and apprentices • Lack of commitment in trainers • Lack of means of transportation for trainers and trainees. • There is a demand of insurance service from the trainees • There is lack of follow up by the trainers. • There is lack of communication system • Failure to use innovations, and improved new findings, discoveries, and creativities

<p>What do you suggest to solve the implementation problems of apprenticeship training?</p>	<p>We should continually create awareness among the industry owners and the trainees, evaluate and assess trainees by the industries, apply sustainable monitoring and evaluation and feedback system by the responsible body and to some extent solve the implementation problems. In addition, the trainees' commitment has to be improved, transportation problems should be solved and, the communication system should be improved by introducing better documentation. We should also improve share and transfer technologies, innovations through creativities and scaling up system.</p>	<p>Solution to challenges:</p> <ul style="list-style-type: none"> • Creating awareness among the industry owners and the trainees • Trainees should be evaluated and assessed objectively by the industries • Sustainable monitoring, evaluation and feedback systems should be placed • The trainees' commitment has to be improved • Transportation problems should be solved • The communication system should be improved • Improving share and transfer technologies through creativities and scaling up system
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Table 4: Interview Transcripts obtained from the Selected TVET College Leaders

/2 April 2010(1:00-2:00PM)/ and /3 April 2012(9:00-10:30AM)/

INTERVIEW QUESTIONS	RESPONSES	CODE
How is the TVET training program going on in your college?	<p>Response of the Interviewee-Selam The outcome based training system requires organizing workshops in order to gain more skills in the actual occupation. In line with this, we have mobilized resources for its successful implementation. In addition, our instructors have managed to prepare curriculum, module, TTLM and other related documents every year.</p> <p>I would like to inform you that 98% of our trainers (34 out of 36) have gone through the National Occupational Assessment Program conducted at the CoCs. We are, thus, delivering the TVET training with these qualified trainers. We also prepare model occupational assessment tools to our trainees, and organize various orientation programs to our trainees and trainers all the time. Last year, we were awarded the ISO certificate due to our quality training.</p>	<ul style="list-style-type: none"> • He mentioned some inputs for future training • No problems were stated.
	<p>Response of the Interviewee-Entoto The TVET program, by its nature, is dynamic. It changes when the policy changes. Moreover, the current TVET training program sticks to practice. More or less the program in our college is going on smoothly. As of last year, we stopped training on soft copies. We are providing training on hard skills only. Thus, the current situation in our college “smells” of the real TVET.</p>	<ul style="list-style-type: none"> • Why did he say “more or less”?
What challenges do you have in training students in the classroom?	<p>Response of the Interviewee-Selam During examination time, some of the trainees do not come on time. This is because they don’t give value to theoretical training. However, we have prepared rules and regulation that could curb these problems.</p>	<p>Challenges when training in college:</p> <ul style="list-style-type: none"> • Disciplinary problems • Suggested ways for its solutions
	<p>Response of the Interviewee-Entoto We admit more than what is expected of us. One reason is that the trainees at this level are the ones who failed the NGSECE /National General Secondary Education Certificate Examination/. The number of students coming to this program is too much/’flood’. This ‘flood’ of students is sent to TVET colleges. Honestly speaking, our intake capacity is not determined by us. Instead, it is decided by TVET Agency. We, thus, could not maintain our standard. This is our main challenge. Secondly; our machineries in the workshops are outdated which can’t perforate, measure, etc correctly; and they lack precession.</p>	<ul style="list-style-type: none"> • He described the word ‘Flood’ • There is problem in college facility
How do you solve these problems?	<p>Response of the Interviewee-Selam We have set the rules and regulations to curb some disciplinary problems. We have also developed a procedure. Accordingly, each training coordinator, with the teacher under him, signs on this document. Finally, I, in turn, sign the agreement with the training coordinator. We found this procedure more applicable to our situation. We benchmarked this procedure from Entoto TVET.</p>	<p>Solution to the challenges:</p> <ul style="list-style-type: none"> • Better to develop procedure for discipline

	<p>Response of the Interviewee-Entoto We should seek a solution to the problem from two angles. To maintain the standard, we possibly try not to admit more trainees and limit the size of trainees per machine by setting the range and at the same time by extending the training period. Concerning machines, we allocate budget every fiscal year. For example, next year we have planned to buy machines that may cost 25,000,000 Birr. Moreover, the government organizes us, at least, two workshops every year. If this effort continues, we shall maintain the standard and will increase our intake capacity.</p>	<p>Solution to the challenges:</p> <ul style="list-style-type: none"> • not to admit more trainees • Expand workshops
<p>What challenges do you have in training students in the practical fields?</p>	<p>Response of the Interviewee-Selam The main challenge of TVET training is the provision of training materials. Due to the global financial crisis, the price of commodities has increased everywhere. We charge minimal tuition fee. We charge one sixth of what trainees should pay. With this amount collected from students, we can't buy all items we need. This severely affects our plan since we can't supply the necessary materials. Besides, at times, we don't get materials in the market. For instance, we prepared a project to buy goods for automotive and electric departments, but we could not buy them since they were not available in the market. In addition, we are far from the town and as a result we face transportation problems. Despite all these problems, we still give priority to practical training.</p>	<p>Challenges at the practical fields:</p> <ul style="list-style-type: none"> • Unable to buy some training materials from the market • The location of the college-far
	<p>Response of the Interviewee-Entoto We can't do the practical training well. This is due to the presences of outdated machines in the college's workshops. This has caused the practical training somewhat difficult.</p>	<p>Challenges at the practical fields:</p> <ul style="list-style-type: none"> • Presence of outdated machines
<p>How do you solve this problem?</p>	<p>Response of the Interviewee-Selam After we have obtained the specification of the goods we need, we send them abroad to be purchased there. We have technical and financial support from our stakeholders abroad; however, the items may be delayed to reach on time. The other option is to facilitate for our students to acquire the skills in the other enterprises.</p>	<p>Solution to the challenges at the practical fields:</p> <ul style="list-style-type: none"> • purchase training materials abroad • Continue APT in the enterprises
	<p>Response of the Interviewee-Entoto Reminding the government to organize us at least two workshops every year. If this effort continues, we shall maintain the standard and will increase our intake capacity.</p>	<p>Solution to the challenges at the practical fields:</p> <ul style="list-style-type: none"> • Remind the government to allocate budget

<p>How are you implementing apprenticeship training program in collaboration with the enterprises?</p>	<p>Response of the Interviewee-Selam We have good experience in this regard. We have good partnership with companies/enterprises. Apprenticeship training program started in our college nineteen years ago. We have been labeling it with various names: apprenticeship, in-service training and on-job training. We have a good reputation in this regard. Some enterprises request us to work in partnership. There are known institutions working with us at this time; for example, Ethiopian Air Lines/ EAL. They came to our campus last year to sign memorandum of understanding on common training programs. We started working in partnership with EAL. To site an example, there is an occupation called furniture making. Trainees registered for this occupation are at the EAL campus for apprenticeship training at this time. Similarly, we have planned to work with some automotive companies and with Coca Cola. In our own campus we have production workshops. We arrange similar training programs in our campus using these workshops. We call it an ‘internal apprenticeship’ training program. We assign instructors, prepare evaluation formats and set special program for its implementation. The program rotates every fifteen days. Before we send our trainees to the enterprises, we first exhaust our options here. But when we send them outside, they experience the external environment and develop their social skill, etc. Most of the time enterprises require us to extend the time for our trainees. For instance, we sent our students to the EAL for a month but they required us to extend it. As it may be known, the nature apprenticeship training is very flexible and requires flexible management. At times we research the problems in the actual situation. Last year, we established a team for this purpose. It came up with feedback for our future training. In Similar ways, the EAL advised us to offer language course to our trainees since it has discovered their poor language performance.</p>	<p>How APT is being implemented:</p> <ul style="list-style-type: none"> • Long experience of APT accompanied by internal APT • The college experienced good partnership • Studies the problem at the actual situation
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	<p>Response of the Interviewee-Entoto</p> <p>Most of the TVET trainings are expected to take place in the industries. One main problem in this regard is lack of awareness. This awareness problem exists at the enterprises, trainees, trainers and leaders. It exists everywhere. If you ask me how it is manifested at the enterprises, it is because apprenticeship training is not perceived as a national issue. In fact, with this training program, we are creating generation. If we think in that way, we can think about the would-be workers at the enterprises in the future. To produce the desired model person, we should train together. We should remind the industry like this and the industry should share its responsibility accordingly. Each of us should think that I have a share in the production of skilled manpower for the country. When this happens, our national visions in the sector will be achieved. On the real ground, however, this is not observed practically. From practical point of view, for instance, our automotive trainees sent at the enterprises may happen to be assigned at the archive which is not related with their occupations. Thus, they perceive the program not as their own duty, rather as a simple support service for colleges. On the other hand, the trainer thinks about the task as an irrelevant job assigned to him from the college. The trainee, on his part, considers the program as ‘on the house’ time that makes him free from college assignments. However; we should think that both training areas; the college and the enterprise, can be applicable for the program. Thus, we should totally alter this kind of attitude. Similar problems may be perceived on the part of the leaders. They should check supervisors and the trainers whether they are doing according to the procedure set; they should probe whether they have attitudinal problems. These are still persistent problems. For example, industry owners are reluctant to sign memorandum of understanding. They give different reasons for it. They ask who should cover trainees’ insurance and the loss of materials in the factory during training.</p> <p>However, with the ones who agree, we prepare training plans and enter into implementation. In our part, we placed special emphasis for apprenticeship training by purchasing three vehicles for this purpose. In general, we do not claim a perfect implementation program, but, we are trying to improve it.</p> <p>Should there be legislative intervention in this respect?</p> <p>Yes, there should be a law. Industries should be imposed. This is what I saw abroad. In Germany, it is the chamber of commerce that assigns apprentices to the industries for apprenticeship training. It assesses and ensures apprentices’ competences. The colleges provide small training and check the curriculum if it has any weaknesses. I saw an electrical enterprise training apprentices for its own consumptions. It was doing the task in partnership with chamber of commerce.</p>	<p>How APT is being implemented:</p> <ul style="list-style-type: none"> • ‘Not perfectly implemented’ • He mentioned some causes of the problems- see below under problems of APT implementation. • Suggested solutions to solve the problem
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<p>What problems did you face during the implementation process of the apprenticeship training program in the enterprises?</p>	<p>Response of the Interviewee-Selam Not all ways are smooth. Enterprises entertain your needs when they need to entertain. They say we have admitted trainees from other TVET Colleges. As a result, they do not accept ours. We repeatedly ask them but they don't answer immediately. They sometimes ask us very difficult questions. For example, a certain enterprise asked us to register for our trainees' life insurance. They said unless you ensure your trainees, no one would be responsible for the loss their hands, legs. This was very challenging. We provide them the formats for this purpose but they do not pay attention to them. At times they don't fill the formats objectively. The trainee may not need to go to the enterprises if he knows the supervisor because he can easily get the grade. To solve these and other problems, we search enterprises for our trainees instead of asking them to search. We also assign a person to regularly supervise the trainees at the enterprises. In addition, we prepare attendance sheet to follow up. On the part of the enterprises there is a problem of understanding the evaluation formats. When we need to assign more students, we strictly follow them and fill the formats. In general, enterprises don't lead trainees in the right way. At times enterprises don't assign trainees in the right jobs. For example, last year we sent trainees to a certain company. It accepted but it assigned them wrongly. We went there to observe the situation. We asked the enterprises why they assigned them wrongly. During the early stages of apprenticeship training, workers at the enterprises had a negative attitude. They thought that the trainees would replace them. Due to this reason, they did not allow them to imitate and even to come closer to them. But through time this attitude was changed. We noticed this event in Akaki spare part factory. As a measure to improve this condition, we sometimes call enterprises to attend graduation ceremony in our college. Meanwhile, we try to create awareness program.</p>	<p>Problems faced during APT implementation:</p> <ul style="list-style-type: none"> • Enterprises are not willing to accept our request • Enterprises are not training according to our need • Enterprises impose us to shoulder unbearable responsibilities • Enterprises sometimes mis-assign apprentices • He mentioned the attitudinal problems in the previous times.
	<p>Response of the Interviewee-Entoto Apprenticeship training is similar everywhere. I can't site you a particular problem to our college. The problems I mentioned are recurring problems that we face all the time everywhere. Failure to sign memorandum of understanding, unable to prepare common training plans, wrongly assigning apprentices are among the many. For the time being, we are working with partners and we have planned to arrange similar awareness program for potential partners. By the way, prior to the awareness program we held at Ghion Hotel, we tried to arrange similar awareness program, however, we could not.</p>	<p>Problems faced during APT implementation:</p> <ul style="list-style-type: none"> • failure to sign memorandum of understanding • unable to prepare common training plans • unable to prepare common training plans • Enterprises wrongly assigning apprentices • There is awareness problem on the part of all stakeholders.

<p>How did you solve the problem?</p>	<p>Response of the Interviewee-Selam As a solution to some of the problems, I personally went to the enterprises to discuss on the issue. We discovered that some of the problems came into being due to lack of awareness. We, thus, arranged awareness programs on some of the issues. Moreover, we invited enterprises to attain graduation ceremonies. Consequently, we encourage them by promoting their services and products in our magazines. As part of this strategy, we held interview sessions with some enterprises' workers. By doing this we assured them that they are our stakeholders.</p>	<p>Solution to the problems:</p> <ul style="list-style-type: none"> • To visit enterprises • To arrange awareness programs • To work closely with enterprises
	<p>Response of the Interviewee-Entoto I answered this question earlier.</p>	<p>Solution to the problems:</p> <ul style="list-style-type: none"> • There should be a law • Awareness program should be arranged • Enterprises should sign memorandum of understanding
<p>What experience did you grasp for a better future apprenticeship training program?</p>	<p>Response of the Interviewee-Selam As to me, the companies should be aware of the program. Secondly, we should organized occupation fair program in the campus (we applied it last year). We invited stakeholders to take part in this program. There was also a dialogue program during the show and tried to create understanding. Other colleges should search for other methods to change the attitudes of enterprises so as pave ground for apprenticeship training. The enterprises play decisive role in this regard. Thus, for the smooth implementation of apprenticeship training, TVET Colleges should exert extra efforts. We should not let trainees to search hosting enterprises on their own. Rather, the TVET Colleges themselves should do it. In line with this, colleges should clarify the aim of the apprenticeship training to all. It will be better if the awareness program is done at the national level. TVET Colleges should also be more creative to attract the industry by designing various means. We do a lot. But, at times we don't stretch efforts to the maximum. I remember, some trainees came to our college for apprenticeship training, but surprisingly, no one came from their respective colleges for supervision. This kind of journey should not continue. Colleges should strictly follow their trainees during their training process at the enterprises.</p>	<p>Experience for future APT</p> <ul style="list-style-type: none"> • Enterprises should be aware • Colleges should organize various means to attract enterprises • Colleges should search enterprises for apprentices • Colleges should follow trainees
	<p>Response of the Interviewee-Entoto We claim that we have gathered some important experiences; for example, we are able to prepare common training plans by identifying the unit of competences. Based on this information, we decide which part of the unit of competence a trainee should take at the enterprises. We exchange this through letters. We don't simply send apprentices to enterprises before we identify their profile. When we want to assign electric trainees, for example, we assign them according to the information we receive from enterprises-Electric Corporation. Similarly, we assign electric installation trainees at the actual work site where the installation is taking place. The other experience is our support service. The trainer in our college doesn't bother about transportation and lunch allowance. The vehicles are under "Counseling and Job integrating coordinator" department. They manage them on their own. In relation to this, we prepare awareness program and put in place a strong supervision</p>	<p>Experience for future APT</p> <ul style="list-style-type: none"> • Manage to solve transportation problems • Able to prepare training plans • Assess enterprises before APT • try to make a link between training performance and its benefits • College leaders should supervise APT

	<p>system. What does your monitoring and evaluation system look like? Above all, we try to make the trainer aware of the link between his training performance and its consequences-the benefits. Each trainer in the college is committed to make 40% of his trainees to pass the CoC. Unless he does so, he can't claim benefits. Also, there are three experts in Counseling and Job integrating department. They always supervise the occupational training at the enterprises. The vice training dean does similar activity. Moreover; we check reports every month.</p>	
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Table 5: Interview Transcripts obtained from Apprenticeship Training Coordinators of the Selected TVET Colleges

/24 March 2012(2:00-3:30PM) and 3 April 2012(8:30-10:00AM)/

INTERVIEW QUESTIONS	RESPONSES	CODE
<p>What procedure do you follow to assign apprentices at enterprises for apprenticeship training?</p>	<p>Response of the Interviewee-Selam I think I am asked to mention the steps. If so, we have regulation for it. Owing to this, the trainees go out for apprenticeship training once in a year. We send year two and three trainees only. Sometimes we send first year trainees during the summer time. Meanwhile, we assign trainees in between the courses. You know there is a course that could be completed before the end of the year. For example, MBW and Electric installation trainees may be assigned while taking the course. Otherwise, we send trainees after they finish the course. They stay in the enterprises for one month. However, before we send them, we request enterprises to accept our trainees. But some say we don't have place and others say we can accept only a limited number of trainees. After I searched the enterprises in this way, I send trainees with an official letter. For example, if the hosting enterprise is located in CMC, I calculate the transportation expenses accordingly. Previously, trainees had lunch allowance but these days we stopped it. During the apprenticeship training process, I (with the trainer, if he is available) go and check trainees twice per month. Sometimes a problem arises before apprentices finish the program. If the problem is regarding the assignment of the trainees, I go to the enterprises and try to solve it. After the apprenticeship training program is over, I go to the enterprise to collect the evaluation formats. At the end I acknowledge the enterprises and come back office.</p>	<p>Procedure for assigning apprentices at the enterprises:</p> <ul style="list-style-type: none"> • First seek enterprises' consent • Assign mostly at the end of a course • Assign year two and three trainees • Assign trainees with transport allowance
	<p>Response of the Interviewee-Entoto Basically we are providing outcome based training. Due to this reason, trainees spend part of their time in the colleges and part of their time in the enterprises. In parallel with this, trainees go to the enterprises for skill training. We follow the procedures for enterprise training. Accordingly, we first assess the competences offered in our college and identify the gaps that should be filled by the enterprises. We thus, screen institutions. After this, we list enterprises according to the work competences. Meanwhile the trainers go to the enterprises to check whether the trainees are equipped with competences. The trainers and the supervisor in the enterprise sit together to prepare the training plan. In their plan they should show when the training would take place in the enterprise and college. Also, they should specify the time allotted for each competence. With reference to the time indicated in the plan, both of them should show the time for enterprise training. Along with this, enterprise and the college should assign a supervisor and a trainer for this purpose. During the apprenticeship training, there should be continuous assessment. Each trainee should undergo this process. Accordingly, competent trainees go back to their college and continue with the other modules. The</p>	<p>Procedure for assigning apprentices at the enterprises:</p> <ul style="list-style-type: none"> • Identify trainees' gaps • Search enterprises that can fill the gap • Training plan will be prepared by trainer and supervisor • Trainees will be assigned • Performance will be checked

	<p>incompetent ones remain in the enterprises until they become competent.</p> <p>If the enterprises fail to cooperate, what measure do you take?</p> <p>When we ask enterprises to sign memorandum of understanding, some of them hesitate. As a result, they provide training without signing the memorandum of understanding. There are some big enterprises which do the same thing. Even if they do not want to sign, we ask them to approve the training plan as far they agree to provide the training. This is due to the fact that the memorandum of understanding is permissive not mandatory. They argue that even if we provide training, no one dares to support us. They say we are losing materials without any benefit. The government should also support us with other means.</p>	<p>If enterprise fail to cooperate:</p> <ul style="list-style-type: none"> • Convince to hold training
<p>How do you begin the apprenticeship training program in your TVET College?</p>	<p>Response of the Interviewee-Selam</p> <p>We set program for both in campus and out of campus training. Accordingly, we have short term internal apprenticeship training program for first year trainees. Thus, they spend the morning session in the college and the afternoon session in the shops. They may spend the whole day in the class and the whole day in the shop. This is only for first year students alone. We also prepare program for second year students. But their program is fixed. One class of trainees may learn for fifteen days in the class and the other fifteen days in the shop. But, auto trainees, do not undergo this process since we have only one workshop for them. By doing this, they familiarize themselves with our workshops. We assign five to six trainees per workshop. We begin the training with the help of the schedule. For the external apprenticeship, we ask enterprises' cooperation through letters. They may express their cooperation, either by phone, letter or in person when we send our people there.</p>	<p>How do you begin APT:</p> <ul style="list-style-type: none"> • If it is an internal, APT it is by setting schedule • If it is external, through phone, letter or in person
<p>How do you recruit, screen and assign apprentices at the enterprises? Can you explain me the procedure that you follow?</p>	<p>Response of the Interviewee-Selam</p> <p>First we classify the companies as big, medium and small. A big company may take more trainees, whereas medium and small companies take few numbers of trainees. For instance, yesterday I went to AMCE office to talk about apprenticeship training in their campus. I raised this to the human resource head. He promised to admit only two trainees. But our trainees are twenty in number.</p> <p>We send higher achievers to bigger enterprises. This is due to the fact that if these enterprises need to employ our trainees, we should be certain about the behavior and academic performance of our trainees. In general, we don't send clever students in medium and small companies. Thus, we recruit, screen and assign apprentices based on their behavior, academic achievement and the type of company.</p>	<p>Recruiting, screening and assigning apprentices at the enterprises:</p> <ul style="list-style-type: none"> • Based on the size of the enterprise • Based on training performance • Based on the trainee's conduct

	<p>Response of the Interviewee-Entoto Let us say that a certain college trainer has 30 trainees in his class, all the 30 trainees should register for the apprenticeship training program. Every trainee should get 70% practical training. We actualize this practical training at the enterprises. Trainees get the opportunity to observe the real occupational situation and meet the employers. During this time, some enterprises employ our trainees. You know, some enterprises want to employ trainees who were once in their enterprises for apprenticeship training. This means that we need the enterprises and the enterprises, in turn, need us.</p> <p>After all, it is the college mandate to arrange apprenticeship training. The trainer has the responsibility of finding enterprises for apprenticeship training. After he has done all the required procedures (searching enterprises, signing memorandum of understanding, preparing plan), he/she begins to implement program. Meanwhile, I supervise the trainees during training process. I think, our college has best practices in this regard. It bought three vehicles for such activities.</p>	Recruiting, screening and assigning apprentices at the enterprises: Any registered trainee in the college is entitled
Which levels of apprentices are assigned at enterprises for apprenticeship training program? In what field of research?	<p>Response of the Interviewee-Selam It is based on leveling. We arrange the program for level 3 and 4 trainees. We send all these levels of trainees. We instruct our trainees to work hard in the enterprises they are assigned.</p>	Level of apprentices assigned: • We arrange to level 3 and 4 trainees.
	<p>Response of the Interviewee-Entoto It is not based on leveling. We send all level of trainees, from 1-5. Every trainee admitted in our college should pass through this program until he/she graduates. If, for example, a level 5 trainee is admitted, then he/she goes through level 1,2, 3, 4 and 5. In all hard skills, we prepare apprenticeship training program like this.</p>	Level of apprentices assigned: • We arrange to all level of trainees
How long does the training last?	<p>Response of the Interviewee-Selam Yes. If it is outside the campus, it is for a minimum of one month. In terms of years, if the trainee stays for three years, it will be three times. But, as an exception, building metal work and installation trainees go out continuously.</p>	APT training time: • One month
	<p>Response of the Interviewee-Entoto When trainees go out for apprenticeship training, there is time allotted for each competence. For example, in metal arching there is time assigned for that competence. The trainees are expected to cover that time in the enterprises where they are assigned. In fact, there is individual difference; some finish it early, others on time and some others lately. In fact, the time differs from competence to competence.</p>	APT training time: • Depends on the nature of competence
Do you limit the number of apprentices you assign at the	<p>Response of the Interviewee-Selam It goes with the intake capacity of enterprises.</p>	Apprentices' number limiting factors: • Capacity of enterprises

enterprises? What reasons are there behind?	<p>Response of the Interviewee-Entoto We limit the number of our apprentices by enterprises' in take capacity. For instance, our trainers first assess the number of trainees the enterprises can admit, in what occupations and for how long. Thus, it is the enterprise that limits the number of apprentices not the college.</p>	<p>Apprentices' number limiting factors:</p> <ul style="list-style-type: none"> • Capacity of enterprises
How do you evaluate the performance of the apprentices assigned at enterprises for apprenticeship training?	<p>Response of the Interviewee-Selam We don't evaluate. It is the enterprise's duty. There is an evaluation format; using this format, enterprises evaluate the trainees. In relation to this, what I want to remind you is that we are asked to apply a new format sent from the MoE that requires us to evaluate the trainee as competent and not competent. Thus, the enterprise that evaluates trainees as not competent will continue training until a trainee becomes competent.</p>	<p>Apprentice performance evaluation at the enterprises:</p> <ul style="list-style-type: none"> • Left to the enterprises • By applying the old format • But aware of the new format.
	<p>Response of the Interviewee-Entoto When we arrange apprenticeship training, there is joint training plan. The evaluation system is specified in that plan and we expect the supervisor to accomplish it. As it is evident, the majority of supervisors at the enterprises had not passed through CoC. Our trainers support them to fill their gaps. I suspect some problems to occur in this regard.</p>	<p>Apprentice performance evaluation at the enterprises:</p> <ul style="list-style-type: none"> • Done with the support of college trainers
How do you communicate with the enterprise regarding apprenticeship training?	<p>Response of the Interviewee-Selam Using a letter, we ask enterprises permission for training. We notify them the number of trainees we have and ask them how many of them they can admit. They tell us their intake capacity either by letter or at times by phone. I personally go to the enterprises to check the performance of the trainees. I do this twice per month. I observed some trainees who didn't strictly follow the apprenticeship training program. We also assign trainees in our workshops for apprenticeship training. During this time, we assess the intake capacity of each production workshop. Obviously, there are workers in these workshops. We assess how many trainees each worker can supervise for apprenticeship training. With all this information, we assign trainees at our workshops.</p>	<p>Communication system:</p> <ul style="list-style-type: none"> • Most of the time using letters • At times by observing Personally
	<p>Response of the Interviewee-Entoto We have various means. Basically, the trainer or the department facilitates this task. We prepare and send brochures, about our colleges, to the enterprises through our trainees. The brochure contains plenty of information about our college. Then we call our partners, even the potential ones, for a special meeting to discuss on TVET issues.</p>	<p>Communication system:</p> <ul style="list-style-type: none"> • Using brochures • Through meetings
Do you set a program for apprenticeship training? Can you explain the details of the program?	<p>Response of the Interviewee-Selam Our program for this purpose is designed for fifteen days. Accordingly; trainees spend fifteen days in the workshops and the other fifteen days in their classrooms. For the other external apprenticeship training programs, we set annual program. In doing this, we arrange the program for a month. We send trainees when we decide that they should observe some different machines not available in our workshops. We prepare this kind of program ahead of time.</p>	<p>Program for APT:</p> <ul style="list-style-type: none"> • Internal for fifteen days • External for a month

	<p>Response of the Interviewee-Entoto Yes, there is regular program for apprenticeship training. As it may be known, apprentices must take common modules like civics and entrepreneurship. The college registrar sets the program by considering these modules. These common modules will be treated together under the regular program.</p>	Program for APT: <ul style="list-style-type: none"> • By balancing the modules to be treated in the class
Do you prepare plan for apprenticeship training program? How do you prepare it? Can you explain it?	<p>Response of the Interviewee-Selam We implement apprenticeship training based on the plan. More than this, we have a job placement and apprenticeship training office that oversees the implementation of apprenticeship training. We prepare our indoor plans for a year. Similarly, the outdoor plan is prepared based on trainees' transport costs and the time it takes them for the training.</p>	Plan for APT: <ul style="list-style-type: none"> • Yes, for both internal and external APT by the college
	<p>Response of the Interviewee-Entoto We prepare plan for apprenticeship training program. This plan is, in fact, is prepared jointly with the college and enterprise trainers. The plan specifies the time assigned to each competence. The format used for this purpose includes detail information about the trainers, the enterprise/college, the time allotted, etc.</p>	Plan for APT: <ul style="list-style-type: none"> • Prepared jointly with colleges and enterprises
Do you assign a person to follow the apprenticeship training at the college level? How do you select and assign him/her for this purpose?	<p>Response of the Interviewee-Selam In short; yes, we have. We have an expert assigned for this task. But when I say one, I don't mean that the work is totally done by this person alone. When evaluating the apprenticeship training in the enterprises, instructors will be assigned with him. But, communicating with enterprises, selecting trainees for apprenticeship is left to a special officer. He is responsible for the apprenticeship training and job placement of trainees. Job placement is based on the performance of trainees during apprenticeship training. It is also done on the basis of the labor demand from the enterprises. The best trainees get the best jobs. Most of the time, employers come and visit our offices for this purpose.</p>	Who follows APT: <ul style="list-style-type: none"> • Mainly the vocational counselor but with others
	<p>Response of the Interviewee-Entoto The trainers in the college and counseling and job integrating coordination experts follow the apprenticeship training. At times the outcome based training vice dean also participates in this program.</p>	Who follows APT: <ul style="list-style-type: none"> • Trainers and counseling and job integrating coordination experts
What problems do you observe, most of the time, during the implementation of apprenticeship training at the enterprises?	<p>Response of the Interviewee-Selam Though not the main ones, we can site some minor problems. The first problem is our failure to assign all trainees at the enterprises. We may have twenty but the enterprise may admit ten of them. The second problem is that enterprises wrongly assign our trainees in occupations that do not satisfy their interest.</p>	Recurring problems in APT: <ul style="list-style-type: none"> • Unable to assign all trainees at the enterprises • Enterprises wrongly assign apprentices
	<p>Response of the Interviewee-Entoto There are enterprises that refuse to participate in the apprenticeship training program. These kinds of enterprises consider the task as government initiated task. I believe this problem is manifested due to lack of awareness. There are others who don't want to sign the</p>	Recurring problems in APT: <ul style="list-style-type: none"> • Refusal of enterprises to participate • Enterprises failure to sign

	<p>memorandum of understanding. All relevant government offices and the media should create awareness. There are other enterprises that wrongly assign the trainees.</p>	<p>memorandum of understanding</p> <ul style="list-style-type: none"> • Wrong assignment of apprentices
<p>How do you address the identified problems to your stakeholders? What measures do they take?</p>	<p>Response of the Interviewee-Selam I tried to identify the problems earlier. To this end, they don't train our students according to our need. We designed a solution by assigning only few trainees. The other critical problem is that enterprises do not assign trainees according to their previous training orientation or choice of occupation in the college. Our solution to this problem is that we arranged a meeting with them. Some of the enterprises have shown improvement but the others have not. Thus, what we did was we stopped our communication with these kinds of enterprises and searched other potential ones. However, we don't face similar problems in our internal apprenticeship training since the workshops are under us.</p>	<p>How to address problems:</p> <ul style="list-style-type: none"> • Arrange meeting and discuss with the enterprises
	<p>Response of the Interviewee-Entoto We examined the problem during the meeting with stakeholders. In our part, we reported the problems. Some of our stakeholders were able to recognize the problems during the discussion. They, in turn, reminded us that some of our trainers were not strictly participating in the program.</p>	<p>How to address problems:</p> <ul style="list-style-type: none"> • Examine the problem during the meeting with stakeholders.
<p>Which problems were reported most of the time?</p>	<p>Response of the Interviewee-Selam The most critical one was the wrong assignment of trainees. Also, in our internal apprenticeship training system, the trainees don't totally indulge in the training program. This is due to the fact that they are trained in the same campus where they acquire classroom training. They do not give value to the workshop training in the campus. However, we are handling the problem through our evaluation and supervision programs.</p>	<p>Problems reported most the time:</p> <ul style="list-style-type: none"> • Wrong assignment of apprentices • Unable to give value to in campus training.
	<p>Response of the Interviewee-Entoto There is no as such significant problem. We noticed that the continuous assessment in the enterprises is handled by the supervisors than our trainers. In general, the apprenticeship training is in its infant stage. I did not observe significant problems.</p>	<p>Problems reported most of the time:</p> <ul style="list-style-type: none"> • Lack of continues assessment at the enterprises
<p>What measure do you suggest to alleviate the problem? By whom? How?</p>	<p>Response of the Interviewee-Selam We think that the most crucial person who can alleviate the problem is the trainee him/herself. For instance, if a trainee is sent in an enterprise that appreciates idleness then that trainee learns the same thing. We observed this problem in our indoor apprenticeship training program. Secondly, unless the instructors follow the trainees regularly, they will not be in a position to acquire skills. Thirdly, since the apprenticeship training is led by the college, it should follow every activity related to it. Thus, the trainer, the trainee and the management body should come in harmony as they are the owners of the apprenticeship training. The other owner of the apprenticeship training is the industry. It should consider the colleges as their important partners.</p>	<p>Suggestions to alleviate the problem:</p> <ul style="list-style-type: none"> • Apprentices should give value to APT • College trainers should follow trainees • The college leaders should follow-up APT • Enterprises should perceive colleges as partners

	<p>Response of the Interviewee-Entoto</p> <p>I believe TVET training is expensive. It is by itself a challenge. Besides, enterprises don't provide us timely information. When we ask them to admit our trainees for apprenticeship training, they hesitate. The experience in the other countries is different. Stakeholders maintain regular partnership but this does not exist in our country. Due to this reason, we are obliged to assign trainees to different enterprises all the time. We don't have "customers" in this respect.</p>	<p>Suggestions to alleviate the problem:</p> <ul style="list-style-type: none"> • Enterprises should provide timely information to colleges • Enterprises should be partners of colleges
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Table 6: Interview Transcripts obtained from TVET Trainers

/26 March 2012(9:00-10:30 AM) and 4 April 2012 (5:00-6:30PM)/

INTERVIEW QUESTIONS	RESPONSES	CODE
<p>How do you describe the implementation status of the apprenticeship training process in the Addis Ababa Administrative region?</p>	<p>Response of the Interviewee-Entoto The principle seems nice. But it is difficult to implement accordingly. This is due to the fact that no trainer is assigned to train apprentices at the enterprises the trainees are assigned. While in the colleges, enterprises are not eager to indenture apprentices. Enterprises are hesitant to sign memorandum of understanding and both the trainer and trainees are not committed to go through the apprenticeship training process.</p>	<p>Implementation status of the ATP:</p> <ul style="list-style-type: none"> • No supervisor are assigned at the enterprises • Trainees are engaged in two programs – in and out campus • Enterprises are not willing to cooperate in APT • Enterprises are hesitant to sign agreement • Lack of commitment on the part of trainers and trainees
	<p>Response of the Interviewee-Selam We have big workshops and most of the time our trainees exercise apprenticeship training in the campus. However; we send them to big enterprises with nice facility like Akaki Metal factory. During this time, they earn pocket money for transportation. However; trainees who don't want to go in far distant areas are told to search on their own. This disappoints the trainees.</p>	<p>Implementation status of the ATP:</p> <ul style="list-style-type: none"> • Trainees unable to get hosting enterprises
<p>How do you recruit and assign apprentices at the enterprises?</p>	<p>Response of the Interviewee-Entoto The current training system at the TVET College is based on work competences. Accordingly, all trainees are expected to go to enterprises to gain work competence through apprenticeship training. It is the trainer who is expected to arrange everything for the trainees. He searches enterprises, signs memorandum of understanding, prepares training plans and inspects its Implementation. In addition he is expected to train in the classroom. How can he achieve all these at a time?</p>	<p>Assignment of trainees at the enterprises:</p> <ul style="list-style-type: none"> • All trainees should pass through
	<p>Response of the Interviewee-Selam Only 2nd and 3rd year trainees take part in the apprenticeship training for two months. We have many types of machineries in our campus. Due to this reason, trainees have the chance to exercise.</p>	<p>Assignment of trainees at the enterprises:</p> <ul style="list-style-type: none"> • Only 2nd and 3rd year trainees

How do you follow the implementation of apprenticeship training at the enterprises?	<p>Response of the Interviewee-Entoto Every trainer in our college is expected to implement the apprenticeship training. In doing so, he/she is expected to search for hosting enterprises, prepare follow-up programs, sign memorandum of understanding, and prepare training plan and other related duties. In reality we don't see this being implemented smoothly due to the influence of various factors. Time is the most influential factor. Trainers are also expected to accomplish all these in parallel with their regular training program in the classroom. How can this be implemented smoothly?</p>	<p>APT follow up:</p> <ul style="list-style-type: none"> • College trainers are expected to follow up
	<p>Response of the Interviewee-Selam There is a person, vocational counselor, responsible for this purpose. This person, together with another college trainer, is supposed to supervise the implementation of apprenticeship training program.</p>	<p>APT follow up:</p> <ul style="list-style-type: none"> • Vocational counselor and trainer
How do you select enterprises for apprenticeship training?	<p>Response of the Interviewee-Entoto In our case, we select enterprises in two ways: through the college trainers and trainees. The college trainer first studies each work competence and decides how to equip the trainees with the skills in the college. To this end, he looks for enterprises in the given occupation. He fulfills all the necessary procedure to seek enterprises' cooperation. Lastly, he sends the trainees in the enterprises that expressed their willingness. The second method of getting enterprises for apprenticeship training is through trainees. The trainees, either through their own efforts or through their parents or relatives, at times get the chances for the training. Surprisingly, I met some enterprises that refused to accept our request but admitted our trainees.</p>	<p>Selection of enterprises for APT:</p> <ul style="list-style-type: none"> • Both by trainer and trainees
	<p>Response of the Interviewee-Selam The person responsible for vocational counseling service selects the enterprises for apprenticeship training using the procedures applicable to this purpose.</p>	<p>Selection of enterprises for APT:</p> <ul style="list-style-type: none"> • Vocational counselor
How do you start implementing apprenticeship training after you have selected the enterprises?	<p>Response of the Interviewee-Entoto As mentioned earlier, every activity such as signing memorandum of understanding, preparing training plan and following trainees' performance at the enterprises is left to the trainer. He is supposed to do all these activities by designing a program. At the end, he is expected to finalize the trainees' performance by considering all the in campus and out of campus tasks accomplished.</p>	<p>How do you start APT:</p> <ul style="list-style-type: none"> • The trainer is expected to do every activity to implement
	<p>Response of the Interviewee-Selam We ask the cooperation of enterprises through letters; and when they agree we send our trainees to the enterprises.</p>	<p>How do you start APT:</p> <ul style="list-style-type: none"> • By seeking enterprises 'cooperation
Who evaluates apprentices' performance during the apprenticeship training at the	<p>Response of the Interviewee-Entoto The evaluation of apprentices' performance at the enterprises is left to the supervisors. But this task requires training on assessment. I am not certain how many</p>	<p>Evaluation of apprentices' performance:</p> <ul style="list-style-type: none"> • Left to supervisor

enterprises?	<p>of them have gone through this process at this time. At the end of the apprenticeship training, the enterprises send us the performance report through the apprentices-labeling them as ‘Competent’ or ‘Not Competent’. However, most of the time, they evaluate them as competent. This result will be incorporated with the campus training result of the same module.</p>	
	<p>Response of the Interviewee-Selam We send evaluation format to the enterprises, and the supervisors fill out the form and returns it through the trainees.</p>	<p>Evaluation of apprentices’ performance:</p> <ul style="list-style-type: none"> • Left to the supervisor
What are the challenges of apprenticeship training process in your college?	<p>Response of the Interviewee-Entoto I generally cite the following persistent challenges of apprenticeship training in our college: incapable of implementing the program according to the guideline, lack of cooperation on the part of enterprises, presence of financial problems to provide incentives and work clothes, unable to get more hosting enterprises, absence of transportation fees and sanitation facilities(soap, tissue paper) to the trainees.</p>	<p>Challenges of APT:</p> <ul style="list-style-type: none"> • Can’t implement according to the guideline • Lack of enterprise cooperation • Financial problem • Lack of incentive • Lack of work uniform/cloth • Lack of transportation fee • Lack or providing sanitation facilities • Unable to get more hosting enterprises
	<p>Response of the Interviewee-Selam I observed problems. The first one is that some enterprises assign apprentices to an irrelevant job. The second problem is the presence of lack of interest among apprentices. They do not engage themselves in the task assigned to them. There are insufficient hosting enterprises in the city. I think they have also bad habits like drug addiction.</p>	<p>Challenges of APT:</p> <ul style="list-style-type: none"> • Wrong assignment • Lack of interest on the part of apprentices • Absence of more hosting enterprises
What solution do you propose to solve the problems mentioned?	<p>Response of the Interviewee-Entoto I believe the enterprises should be encouraged to continue the apprenticeship training program. Various incentive schemes may be facilitated: tax exemption, enterprise popularization/promotion, etc. Supervisors at the enterprises should also be motivated by applying different means. They should be made aware of the whole apprenticeship training process and should be provided with incentives since they are engaged in additional tasks.</p>	<p>Solution to the challenges:</p> <ul style="list-style-type: none"> • Enterprises should be encouraged • Supervisors should be motivated
	<p>Response of the Interviewee-Selam I suggest that the college counseling office should provide advice to apprentices. It should also regularly follow the apprenticeship training process at the enterprises.</p>	<p>Solution to the challenges:</p> <ul style="list-style-type: none"> • Provide advice to apprentices • Counselors should regularly visit apprentices at the enterprises

Table 7: Interview Transcripts obtained from supervisors at the enterprises

/9 April 2012(9:00-10:30AM), 11 April 2012(2:30-4:00PM) and 16 April 2012(8:30-10:00 AM)/

INTERVIEW QUESTIONS	RESPONSE	CODE
How do you provide apprenticeship training to the apprentices?	<p>Supervisor at MMEE: There is a person in our enterprise that follows the apprentices' case. This person inspects what courses the apprentices took when they were in their respective colleges and decides to which department they should belong to. During the training time, they will be assigned to the different levels of supervisors (junior- senior). We assign them with the workers and are expected to relate their college training with the jobs in the enterprise.</p>	<p>How APT is provided:</p> <ul style="list-style-type: none"> • Based on apprentices' college training background
	<p>Supervisor at ACBTSE: At the end, they come here for training starting Monday through Sunday-two days per week. As far as we can, even if the enterprise has a lot of duties, we help students to gain skill. In view of this, we arrange them special program. Accordingly, they observe in the morning session and practice in the afternoon- from 9 to 10 o'clock local time. In relation to this, a machinist, either in leaser, milling or shipper provides mentoring support. I think observation is one method of training. We provide them training in this way. As you may know, the manner of the youth seems bad these days. However; when they come here, we order them freely. Even we order them to do a task not in their field of training. We approach them kindly. We have been providing this kind of service for nine years. We also recruited two apprentices for our office last year.</p>	<p>How APT is provided:</p> <ul style="list-style-type: none"> • By simply setting a program for observation and practicing
	<p>Supervisor at Hibret Manufacturing and Machine Building Industry (HMMBI): The college first asks us to admit apprentices in our industry. We respond according to the place we can provide for them. When they send us the apprentices, we provide them work cloth and prepare them ID. Following this, we brief them on various issues related with training in the enterprise. We teach them about work discipline, safety, including the work ethics and how they should be trained. However; since the main duties of the enterprise is on production, we first assign apprentices to support machinists before we allow them to work alone.</p>	<p>How APT is provided:</p> <ul style="list-style-type: none"> • By providing orientation • Pairing with experienced supervisors
To which level of apprentices do you provide apprenticeship training? In what field of research?	<p>Supervisor at MMEE: Up to this time, we were admitting level 3 apprentices in Engine mechanics from Entoto and level 4 automotive electricity apprentices from Selem TVET colleges.</p>	<p>To whom APT is provided:</p> <ul style="list-style-type: none"> • Up to now level 3 and 4

	<p>Supervisor at ACBTSE: It is based on the colleges' choice. But we can train from level 1-4. We admit apprentices in machinist in leaser, milling, and shipper; moreover, in different kinds of boring machines: crank shaft machine, immolate, welding. During this time, trainees observe some of the machines that are higher than their capacities; for example, boring machines. These kinds of machines require accuracy which is measured by indicators. Hence, we instruct the apprentices to observe than to operate them. In our shop-machine shop- we admit very limited number of apprentices.</p>	<p>To whom APT is provided: • Level 1 to 4</p>
	<p>Supervisor at Hibret Manufacturing and Machine Building Industry (HMMBI): We train from level 1-4 in machine.</p>	<p>To whom APT is provided: • Level 1 to 4</p>
<p>Is there a procedure you follow before the apprenticeship training begins? Can you explain the details of it?</p>	<p>Supervisor at MMEE: The college first asks us whether we have places for their apprentices or not? Based on the request we furnish them information on how many students we can admit and in what level. Specifically, in our enterprise, the case will be refereed to me and I hold a discussion with the college delegate. Finally, we reach on consensus on the number of students and in what level we can admit. Also, we exchange information on the profile of the apprentices: the courses they cover during their college training and what the intervention of the enterprise should be. Based on the information, we decide where to assign the apprentices. Particularly in our enterprise, we expect them to strictly follow the training process. At the same time, they participate in income generation schemes. We consider them as a regular worker in our enterprise. Hence, they should comply with the procedures of the enterprise by signing on attendances.</p>	<p>Procedure before APT: • Request from the college • By researching the apprentices' profile • By assigning the apprentice at the appropriate place</p>
	<p>Supervisor at ACBTSE: An innumerable number of apprentices, personally or through their respective colleges, come and ask us for apprenticeship. Those not admitted, at times, weep. When this happens, we sympathize and admit and tell them simply to observe a task. Lastly, we fill out the evaluation format (by writing Competent) and send them back to their colleges. It seems unethical to label inactive apprentice as 'competent' but they bother and beg us continually. To be frank, the evaluation format does not correctly evaluate the apprentice. It has only two options- Competent or Not Competent. I would suggest that they should review the evaluation format.</p>	<p>Procedure before APT: • Request from the college • At times through personal request</p>
	<p>Supervisor at Hibret Manufacturing and Machine Building Industry (HMMBI): Every time we plan to receive apprentices, we set quota to receive apprentices from Universities and TVET colleges. We train the apprentices based on the training plan we prepare with the colleges. Following this, we set an implementation program.</p>	<p>Procedure before APT: • By setting plan ahead of time</p>

<p>w do recruit, screen and select apprentices and supervisors in your enterprise for the apprenticeship training program?</p>	<p>Supervisor at MMEE: As you may know, MME is a profit making enterprise. Due to this reason, it always thinks about how it makes more profit. Thus, for the first time it was we, not the colleges (Entoto and Selam), who initiated the apprenticeship training. By the way, I was once a TVET instructor and I know the advantages of apprenticeship training. I paid a visit to both colleges and studied their facilities, held a meeting with the college leaders, and discussed further on the kind of apprentices we require for apprenticeship training. We discovered that the apprentices from Selam have good manners. However, the quality of training in both colleges is also good. We admit trainees from these colleges. We, thus, set criteria that the apprentices should have good manner from both sexes. In fact, their field of training had to be in auto mechanics and auto electricity. With regard to the selection of the supervisors, we employ them based on our enterprise objectives. We pay attention to the profiles of the employees. We believe that they can better perform and meet our objectives. Most of these employees were TVET graduates in diploma and there were very few from universities. These are the supervisors we assign for apprentices. You know, we are importing technologically advanced vehicles from South Korea-Hyundai. As a result, we need employees who can cope up with the latest technology. Besides, we always provide training to keep abreast with the current vehicle technology. The apprentices have the opportunity to undergo through this process in our enterprise, and to be trained by supervisors with better experience. The apprentices may get the chance to use modern vehicle testing instruments in our enterprise. We support them to get intensive training continuously and become skillful performers.</p>	<p>How do you recruit, screen and select apprentices & supervisors:</p> <ul style="list-style-type: none"> • Regarding apprentices , initially by the enterprise • Later on by the colleges • Concerning supervisors, the enterprise believes that it assigns experienced supervisors.
	<p>Supervisor at Anbesa City Bus Transport Service Enterprise (ACBTSE): When the apprentices reach here, we don't assign them only to one shop. Instead, we assign them to various shops. We assign the six senior machinists accordingly. Apprentices perform different tasks but don't remain in one place. We rotate them around all shops. But perfection does not come at a time. So, we advise them to imitate carefully all the time. I remember there was a girl who continued her apprenticeship training program on her own here in our department for a year. Lastly, the enterprise wrote her a letter testifying her one and half year service. With that letter she got a job and by now she is in a good position.</p>	<p>How do you recruit, screen and select apprentices & supervisors:</p> <ul style="list-style-type: none"> • We don't recruit screen and select apprentices. It is the college that does this • But we assign experienced supervisors
	<p>Supervisor at Hibret Manufacturing and Machine Building Industry (HMMBI): We focus on the available places we have instead of other factors like age, sex, etc. We select supervisors who have rich work experiences, good ethics and social interaction.</p>	<p>How do you recruit, screen and select apprentices & supervisors:</p> <ul style="list-style-type: none"> • We admit based on our capacity • We assign experienced supervisors.
<p>What special rooms do you have for apprentices?</p>	<p>Supervisor at MMEE: In our enterprise we are on the process of constructing training center. However; we don't have special room at this time.</p>	<p>What special room for training:</p> <ul style="list-style-type: none"> • All answered it as there is no

	<p>Supervisor at ACBTSE: We don't have special room but we do the work just on the site we meet, and exchange views on some challenging issues. We accomplish the tasks by raising some specific and detailed procedures. It will be good if we have a special room for both the apprentices and even for ourselves.</p> <p>Supervisor at Hibret Manufacturing and Machine Building Industry (HMMBI): There is no!</p>	
How do you limit the number of apprentices you admit? Why?	<p>Supervisor at MMEE: When one thinks about training, the issue of capacity comes to the forefront. The same is true in our enterprise. We don't admit all apprentices due to our limited capacity. Our method of practical training is that we assign two apprentices to one senior supervisor; as in the case of Auto and electric training. By doing this, we believe that we provide more practical knowledge to the apprentices.</p> <p>Supervisor at ACBTSE: We limit the number of apprentices based on our capacity. But excessive number of apprentices come and asks us for apprenticeship training. The number of apprentices requesting for apprenticeship training does not go with the available space in the enterprise. We, in fact, share their problem and respond them positively. We will continue to accept apprentices according to our capacity.</p> <p>Supervisor at Hibret Manufacturing and Machine Building Industry (HMMBI): We limit the number of apprentices to be admitted because of our capacity. We give priority according to the applications we receive.</p>	<p>How do you limit apprentices:</p> <ul style="list-style-type: none"> • All answered it as_ depending on our capacity
How did you start to implement apprenticeship training in your enterprise?	<p>Supervisor at MMEE: What I want to tell you is that I came here one and half years ago. I was teaching automotive technology in one of the TVET Colleges. I know the advantages of TVET and I understand the vision set for it. When I reached here, I noticed shortage of skilled manpower problems in the enterprise. Eventually, I proposed to make a link with TVET Colleges. The enterprise's management accepted my proposal and we started communicating with the Colleges. We preferred the two colleges since we believe that they have better facilities.</p> <p>Supervisor at Anbesa City Bus Transport Service Enterprise(SACTBS): The colleges send us letters requesting cooperation every time. The process continued for eight or nine years. Previously, apprentices from private colleges were coming. But these days, almost all apprentices come from public colleges. Addis Ababa University engineering students also come here for apprenticeship training.</p>	<p>How APT started in the enterprise:</p> <ul style="list-style-type: none"> • By the interviewee's initiative <p>How APT started in the enterprise:</p> <ul style="list-style-type: none"> • By colleges' request

	<p>Supervisor at HMMBI: We admit trainees whenever colleges request. This is government policy and we all should comply without hesitation. We started training when apprenticeship started to be implemented in Addis Ababa.</p>	<p>How APT started in the enterprise:</p> <ul style="list-style-type: none"> • By colleges' request
How do you organize any resource to implement apprenticeship training in your enterprise?	<p>Supervisor at MMEE: Marathon Motor Engineering Enterprise is a business organization. It has its own organizational structure and allocates budget to each department. However, regarding apprenticeship training, we don't allocate special budget. But when apprentices come here for training, we provide them transport allowance, work cloth, soap, tissue paper and shower service.</p>	<p>How resource for APT is organized:</p> <ul style="list-style-type: none"> • No special budget • Provide pocket money and materials
	<p>Supervisor at ACBTSE: We don't allocate special budget or material for apprenticeship training. But there are materials left after each task is accomplished and we use them for this purpose.</p>	<p>How APT started in the enterprise:</p> <ul style="list-style-type: none"> • No special budget or material
	<p>Supervisor at HMMBI: We don't organize a special resource for the apprenticeship training. We use the resource at our hand in the enterprise.</p>	<p>How APT started in the enterprise:</p> <ul style="list-style-type: none"> • No special resource
How do you evaluate the performance of the apprentices?	<p>Supervisor at MMEE: We have our own way of appraising apprentices' performance. For instance, regarding attendance, we evaluate whether he/she comes regularly or not. We also observe on the use of work cloth and the application of safety rules. At the same time, we inform our senior supervisors to evaluate the manners, performances, and the safety application capacity of apprentices. In addition, the colleges require us to fill out the evaluation format and we evaluate them according to the instruction we get.</p>	<p>How to evaluate apprentices' performance:</p> <ul style="list-style-type: none"> • Using the enterprise's way • Using the college's format
	<p>Supervisor at Anbesa City Bus Transport Service Enterprise(SACTBS): We comment apprentices while they are working; otherwise, we do not apply continuous assessment procedure. We don't even assess them objectively at the end. But before we dismiss them, we gather and ask some oral questions. Had this been accompanied by numerical grading system, it would have been better. However, evaluating apprentices at this time is not done objectively since we use only two options.</p>	<p>How to evaluate apprentices' performance:</p> <ul style="list-style-type: none"> • While working by the supervisor • At the end by employing the format sent from the college
	<p>Supervisor at HMMBI: We evaluate them through the supervisors we assigned for them. We start from ethics, manner, and safety application and production ability. At the end we fill out the format sent from the colleges.</p>	<p>How to evaluate apprentices' performance:</p> <ul style="list-style-type: none"> • While working, by the supervisor • At the end by employing the format sent from the college.

How do you record and notify the achievements of the apprentices in your enterprise?	Supervisor at MMEE: Regarding the notification of the achievements of the apprentices, we fill out the format and send it through the apprentices. In fact, we show the report to the apprentices before we send it. We ask them for their comments. Finally, we record and file each apprentice's performance in our data base.	How to record and notify achievements: <ul style="list-style-type: none"> • By filling out the format. • It records the results in its data base
	Supervisor at Anbesa City Bus Transport Service Enterprise(SACTBS): The colleges send us an evaluation format and we assess apprentices using that format. We don't record the result using any form here in our enterprise. We send the result to the college through the apprentices.	How to record and notify achievements: <ul style="list-style-type: none"> • By filling out the format. • No recording in the enterprise.
	Supervisor at HMMBI: We don't record the achievements of the apprentices. We simply send the filled format to the colleges.	How to record and notify achievements: <ul style="list-style-type: none"> • By filling out the format • No recording in the enterprise
How do you communicate the achievements of the apprentices with the TVET College?	Supervisor at MMEE: With a sealed envelope, we sent the apprentices achievements to the colleges. In relation to this, what I want to remind you is that the college trainers do not come regularly to observe the apprentices' performance.	How do you communicate: <ul style="list-style-type: none"> • With sealed envelope through the apprentices
	Supervisor at ACBTSE: Official report letter signed and sealed by the enterprise will be sent to the colleges through the apprentices.	How do you communicate: <ul style="list-style-type: none"> • With an official report letter through the apprentices
	Supervisor at HMMBI: We fill out the format and send through the apprentices. But we sometimes discuss with college trainers when they come here.	How do you communicate: <ul style="list-style-type: none"> • Filled format through the apprentices.
How do you explain budgetary problem you face when implementing apprenticeship training in your enterprise? How serious is the problem?	Supervisor at MMEE: Since we accept trainees according to our capacity, we haven't faced this kind of problem. We accept them in planned way. Due to this reason, we do not have problems related with budget.	Budgetary problem: <ul style="list-style-type: none"> • We admit according to our capacity. So, we don't feel it
	Supervisor at Anbesa City Bus Transport Service Enterprise (ACBTSE): In fact, there should be budget. But, our enterprise is indirectly expending money on the apprenticeship training program. It is using its own materials for this purpose.	Budgetary problem: <ul style="list-style-type: none"> • The program requires but we use our own
	Supervisor at HMMBI: We use our own resource to train apprentices. In fact, we need money for extra expenses.	Budgetary problem: <ul style="list-style-type: none"> • We use our own

How do you set an implementation program for apprenticeship training?	Supervisor at MMEE: Previously, the apprentices come during summer and stay here for two months and go back when the colleges open. However, at this time, the trainees from Entoto college stay here three days per week for eight hours. In fact, apprentices from Selam college stay here for two to three months.	How to set implementation program for APT: • According to the needs of the apprentices
	Supervisor at Anbesa City Bus Transport Service Enterprise (ACBTSE): There is no. We don't prepare separate program to the apprentices when they come to our enterprises. We train them in one and the same occupation.	How to set implementation program for APT: • No special program
	Supervisor at HMMBI: The coordinating office prepares the program and sends it to the workshops for its implementation.	How to set implementation program for APT: • What kind of program?
How do you solve training materials problem?	Supervisor at MMEE: We admit a limited number of apprentices. Hence, we don't face material problems in our enterprise.	How to solve training materials problem: • We don't face since we admit limited number
	Supervisor at ACBTSE: In our enterprise we don't face training materials problem. We use our own. But it will be good if enterprises reserve materials for apprenticeship training program.	How to solve training materials problem: • We don't face since we use our own • But it needs
	Supervisor at HMMBI: We admit a limited number of apprentices. Hence, we don't face material problems in our enterprise.	How to solve training materials problem: • We admit limited number and we don't feel it.
What objectives of apprenticeship training did you set for this and last year that have not yet achieved the expected aims?	Supervisor at MMEE: . We did not set specific objectives in line with the apprentices' way of training.	What objectives of ATP did you set last year: • The same by all three supervisors-we didn't set
	Supervisor at ACBTSE: We always say we should train apprentices but we didn't set special objectives for this purpose.	
	Supervisor at HMMBI: We don't set special objectives to be achieved through the apprenticeship training.	

<p>What measure do you take to alleviate:</p> <ul style="list-style-type: none"> ▪ budgetary problem? ▪ time problem? ▪ training materials problem? ▪ Mentor problem? ▪ With whom should you work to solve each of the above problems? Can you explain 	<p>Supervisor at MMEE: Regarding budgetary and time problem, we don't have any problem since we admit limited number of apprentices. After all, the apprentices come and join us without requiring us extra resources. They come and join our normal working hour, material resource and budget.</p>	<p>What measures to be taken to alleviate:</p> <ul style="list-style-type: none"> • Budget, time, training materials; no problem regarding these. • No mention was made about mentor.
	<p>Supervisor at ACBTSE: My enterprise has no financial problem. However, the training of apprentices does not require us budget; for example, if apprentices are assigned to observe a mechanic, it does not cost us. But there should be money for neatness. Time is a very expensive resource in our enterprise. Allocating special time for apprenticeship training may affect our working time. In our workshop we reserve one hour (9-10 o'clock local time) practice period for the apprentices. To make apprentices more skillful, at a time, may seem an ambitious task. Making training materials available for apprenticeship training will be the task of the government and our enterprise too. The government can decide. But our enterprise has passed through long history. Due to this reason, it has not material problems for apprentices at this time. The body of the buses available in the compound can be used to this purpose. To alleviate the mentor problem, we should reduce the number of apprentices sent to enterprises. In our shop, we employed only two TVET graduates. But in the automotive department, there are more than forty graduates of TVET Colleges.</p>	<p>What measures to be taken to alleviate:</p> <ul style="list-style-type: none"> • Budget needs attention • Time needs attention • Training materials don't need. • Mentor problems need attention
	<p>Supervisor at HMMBI: We don't have budget, time, material problem and even no mentor problem.</p>	<p>What measures to be taken to alleviate:</p> <ul style="list-style-type: none"> • No budget, time, training materials and mentor problems
<p>From which vocational fields and levels do you mostly employ apprentices?</p>	<p>Supervisor at MMEE: We employ from auto mechanics and electric graduates in level 4.</p>	<p>From which field the enterprise employ:</p> <ul style="list-style-type: none"> • Auto mechanics and electric graduates in level 4

	<p>Supervisor at ACBTSE: We employ machinists and automotive graduates in level 4.</p>	<p>From which field the enterprise employ: <ul style="list-style-type: none"> • Machinists and automotive graduates in level 4. </p>
	<p>Supervisor at HMMBI: This data can be available at our Human Resource Department.</p>	<p>From which field the enterprise employ: <ul style="list-style-type: none"> • No information provided </p>
Which level of apprentices' best fit the skill requirements for the positions in your enterprise?	<p>Supervisor at MMEE: From TVET strategy point of view, all levels are necessary. But from the point of view of our skill requirement, we need level three and above.</p>	<p>The need for TVET graduates: <ul style="list-style-type: none"> • We need level three and above </p>
	<p>Supervisor at ACBTSE: For employment purpose we accept from level 2-4.</p>	<p>The need for TVET graduates: <ul style="list-style-type: none"> • We can accept level 2-4 </p>
	<p>Supervisor at HMMBI: We can employ from level 1-4.</p>	<p>The need for TVET graduates: <ul style="list-style-type: none"> • Level 1-4 </p>
What are the greatest challenges you face when implementing apprenticeship training?	<p>Supervisor at MMEE: We can raise a lot of issues. But the most challenging one is the <u>manner</u> of the apprentices. Some of the apprentices lack devotion don't come on time and don't have a feeling of responsibility. If one has an interest, he can develop his knowledge through time. For instance, we business people give value to our customers and know how to handle them but the new generation doesn't. This is an indicator of problem in conduct. I don't believe that the colleges should control this kind of trainers' behavior. This is a big problem. The other problem is lack of knowledge on safety. A single vehicle in this enterprise costs minimum of 600000 Birr. If an apprentice commits a mistake like this, it may result in a hundred-thousand Birr loss. I doubt whether they have gone through this issue when they were in the colleges. Therefore, training on safety such as how to use tools, power, and components should be provided in the colleges.</p>	<p>Challenges of APT: <ul style="list-style-type: none"> • Manner of apprentices • Lack of knowledge on safety </p>
	<p>Supervisor at ACBTSE: Our greatest challenge is the number of apprentices requiring apprenticeship training program. At times we observe apprentices' misbehavior. They don't strictly attend. The general manager once observed them sitting idle.</p>	<p>Challenges of APT: <ul style="list-style-type: none"> • High number of apprentices requiring the training • Apprentices' misbehaviors </p>

	<p>Supervisor at HMMBI: Our greatest challenges are:</p> <ul style="list-style-type: none"> ❖ Apprentices' number ❖ Time (since we use it for production as well) ❖ Trainees' conduct; since some of them were not devoted ❖ Lack of pocket money ❖ Lack of follow up on the part of colleges trainers. 	<p>Challenges of APT:</p> <ul style="list-style-type: none"> • Apprentices' number • Time (since we use it for production as well) • Trainees' conduct • Lack of pocket money • Lack of follow up on the part of colleges trainers
How frequently do you cooperate with TVET Colleges to discuss challenges of apprenticeship training?	<p>Supervisor at MMEE: I remember there was a discussion forum held at the national hotel last year. My boss took part in that half-day long discussion held in Addis Ababa. The challenges were raised and discussed. At the same time, we rarely discuss the challenges with the trainers at the colleges. The frequency of holding discussion on the challenges is less.</p>	<p>Cooperation with TVET colleges to solve the challenges:</p> <ul style="list-style-type: none"> • Not frequently but may be by coincidence
	<p>Supervisor at ACBTSE: When the trainers come here for supervision, I report them the problem. I frankly report them not to send us more apprentices. This is not, in fact, a problem to be solved by them. They also tell us the problem frankly.</p>	<p>Cooperation with TVET colleges to solve the challenges:</p> <ul style="list-style-type: none"> • Reminding the problem to the trainers and discuss on it.
	<p>Supervisor at HMMBI: There was no discussion time with the stakeholders.</p>	<p>Cooperation with TVET colleges to solve the challenges:</p> <ul style="list-style-type: none"> • No discussion with the stakeholders
How important is the cooperation for your enterprise?	<p>Supervisor at MMEE: It is important. It can bring a solution to some of the problems.</p>	<p>Importance of cooperation:</p> <ul style="list-style-type: none"> • All claim it as important
	<p>Supervisor at ACBTSE: I believe it is important.</p>	
	<p>Supervisor at HMMBI: It has importance.</p>	
What do you think is the best way to cooperate with stakeholders on implementing apprenticeship training?	<p>Supervisor at MMEE: I believe it will be better to establish cooperation with stakeholders. If enterprises come together, I hope they can play great role in preparing skilled manpower to our country. I observe a gap between what the market requires and what colleges are training. Most of the colleges are not organized according to the labor market demand, except few; like Selam. How to raise the level of cooperation of the stakeholders should be thought by the trade Unions. I think the presence of Unions is vital.</p>	<p>The best way to cooperate:</p> <ul style="list-style-type: none"> • To come together with the other enterprises(through Unions) and colleges to examine the labor market

	<p>Supervisor at Anbesa City Bus Transport Service Enterprise (ACBTSE): I don't know how to answer you this question because our task is to train. This is an issue to be addressed to the higher managers in the enterprise.</p>	<p>The best way to cooperate:</p> <ul style="list-style-type: none"> • A question to be presented to enterprise managers
	<p>Supervisor at HMMBI: It will be better to discuss with the managers.</p>	<p>The best way to cooperate:</p> <ul style="list-style-type: none"> • A question to be presented to enterprise managers
What actions should stakeholders take in order to improve the implementation of apprenticeship training?	<p>Supervisor at MMEE: There is nothing.</p>	<p>Are there other actions to be taken:</p> <ul style="list-style-type: none"> • All answered it as nothing.
	<p>Supervisor at ACBTSE: It is enough.</p>	
	<p>Supervisor at HMMBI: Nothing.</p>	
What is the impact of the TVET policy on the enterprise (regarding class size, supervisors' credential, curriculum, etc.)?	<p>Supervisor at Marathon Motor Engineering Enterprise (MMEE): I believe there should be policy on the issues you mentioned.</p>	<p>Impact of TVET policy on enterprises:</p> <ul style="list-style-type: none"> • All agree on the importance of policy.
	<p>Supervisor at ACBTSE: It is an essential thing. The issue of apprenticeship training is a national task; hence, every enterprise should participate. All conditions leading towards it should be facilitated. This can be enhanced by policy interventions.</p>	
	<p>Supervisor at HMMBI: It is an important thing and should be enforced by the government.</p>	

General characteristics of the apprentices

Name of the college	Participant code	Level	Field of research	Age	Sex	Apprenticeship starting time	Apprenticeship ending time	Apprenticeship program per week	Hosting enterprise
Entoto	01	3	Hotel and Tourism	19	F	February	March	Mon. and Wed	National Hotel
Entoto	02	3	Automotive	18	M	February	March	Mon. and Wed	Anbesa
Entoto	03	3	Automotive	19	M	February	March	Mon. and Wed	MMEE
Selam	04	4	Electricity	23	M	February	March	Mon.-Fri.(Full)	Tekle Birhan construction
Selam	05	4	Electricity	21	M	February	March	Mon.-Fri.(Full)	Tekle Birhan construction
Selam	06	4	Electricity	18	M	February	March	Mon.-Fri.(Full)	Zefemesh construction

Table 8: Interview Transcripts obtained from apprentices of TVET Colleges
/(23 March 2012)/

QUESTIONS ABOUT APPRENTICES' MOTIVATION		
INTERVIEW QUESTIONS	RESPONSES	CODE
What do you think is the reason for organizing apprenticeship training in this enterprise?	Response of the Interviewees: 01: It enables to make the classroom training more tangible and practical. 02: It enables to gain more skills using tools in the enterprises. 03: It provides assistance to the apprentices and opens the chance to be employed in the enterprises. 04: It helps the apprentices to interpret the theoretical skill.05: It assists to gain appropriate job skill 06: It makes the apprentices aware of the challenges and makes them ready for future work.	Reasons for organizing APT in general: <ul style="list-style-type: none"> • to see the classroom training more tangible#1 • to gain more skill using tools at the enterprise#1 • opens the chance for employment#1 • to interpret the theoretical skill#1 • to gain job skill#1 • to prepare for future work#1
In your opinion, how can an apprentice understand the objectives of apprenticeship training in this enterprise?	Response of the Interviewees: 01: I understand that it is arranged to produce skillful worker. 02: I think they can better understand it when they can practically involve in the training of the enterprises.03: I believe they can understand it when the college arranges and sends them to the enterprises. I personally got the chance to see some tools in the enterprise where I was sent. 04: I think they may realize the value of apprenticeship while practicing at the enterprises. 05: He/she can understand it in a good way. 06: We apprentices think that it is impossible for us to be equipped with the right kind of skill unless we go through the apprenticeship training process.	How can apprentices understand the above objectives? <ul style="list-style-type: none"> • when practically involved#2 • When the college arranges awareness program#1 • While passing through the apprenticeship training program#1 • Irrelevant answer#2,01,05
What makes you motivated to be trained in apprenticeship training in this enterprise?	Response of the Interviewees: 01: It is due to the intrinsic relation of classroom training and enterprise training. 02: I should participate because it is the regulation of my college. But I faced new things at the enterprises even if that is the case. 03: It was due to the following reasons: I want to have my own job and I had to first observe the experience in the world of work before I begin anything. I dare to say my college has gaps since it could not provide all tools for the training. Thus, I had to share the problem by taking part in the training at the enterprises. 04: I searched a lot but I found this enterprise as the best one.05: I was initiated by the college's program. 06: I don't know.	Motivating factors to take part in APT: <ul style="list-style-type: none"> • To have my own job#1 • To acquaint with tools not available at the college • Irrelevant answer#4, 01,02,04,05,06
Did you come to this enterprise for apprenticeship training by chance or	Response of the Interviewees: 01: I can say it was by chance. This is due to the fact that I did not choose to	Condition for going to the enterprises: <ul style="list-style-type: none"> • Choice#4

choice? Explain it.	come to this enterprise. My choice was to go to other Hotels. 02: I came here based on my choice. 03: I chose it on my own. 04: It is my choice. 05: I came here by chance. 06: I came here with my interest.	<ul style="list-style-type: none"> • Chance#2
Are there things you like and dislike in this enterprise? What are they?	Response of the Interviewees: 01: I disliked the bad behavior of the workers and the rules in the hotel. On the contrary, I did not forget the good behavior I showed to the guests. 02: The enterprise makes the workers free. The workers, in turn, are more eager to produce.03: I saw nothing that caused me to dislike the enterprise.04: I dislike workers who don't come on time and I like working effectively and efficiently in the enterprise. 05: Yes. 06: The workers don't respect the working hours and I dislike it. On the other hand, they are cooperative and free- this is what I like.	Thinks apprentices like and dislike: <ul style="list-style-type: none"> • I dislike bad behaviors of some workers and rules of the enterprise#1 • I dislike the behavior of some customers#1 • I like the freedom of workers#2 • I like and dislike nothing#1 • I dislike workers who don't come on time#2 • I like workers who work hard#1 • Irrelevant answer#1
What things add to your satisfaction when you take part in the apprenticeship training in this enterprise?	Response of the Interviewees: 01: It helped me to see the relationship between theoretical and practical training. It also helps the training system to see opportunities for more training methods. 02: It developed my confidence. It further encourages you to establish your own business. 03: Honestly, there was no. 04: The provision of training materials on time and workers devotion added to my satisfaction. 05: It contributes for love in work and to make classroom training more practical. 06: At times, when they are interested they give money for tea.	Things that add satisfaction: <ul style="list-style-type: none"> • When I see the relationship between theoretical and practical training#1 • Opportunity to develop confidence#1 • There was no#1 • Provision of training materials and workers devotion#1 • When I see the classroom training being practical#! • Minor benefits#1
What particular tasks encourage or discourage you to perform at the enterprise?	Response of the Interviewees: 01: The workers in the hotel were encouraging us by explaining about the work. On the other hand, I was discouraged by the workers when they explain issues that do not interest me. 02: It enabled me to meet various kinds of people and to widen the opportunity to share experiences. 03: They leave their duties to us and it was discouraging to me. 04: The provision of materials on time and workers devotion added to my satisfaction. 05: It helps to pay attention to the tasks and enables to solve problems practically. 06: I got happy when I submitted the result of my assignment according to the instruction I got and the vice versa.	What tasks discourage and encourage apprentices: <ul style="list-style-type: none"> • Explaining about the work encourages #1 • When I see workers discussing irrelevant topics#1 • I become discourage when workers leave their job to me#1 • Provision of training materials and workers devotion encourage me#1 • When I submit my assignment I become encouraged#1 • Irrelevant answer#1
What particular tasks are you performing practically in the enterprise?	Response of the Interviewees: 01: The people in the hotel orders you to perform tasks that may or may not contribute to the development of your career. 02: I was performing tasks ordered by clients of the enterprise. 03: I overhaul parts of the engine. 04: I do all what I should do. 05: I perform according to the instruction I receive from the supervisor. 06: We intended to perform all what we learned in the	What tasks the apprentices were performing: <ul style="list-style-type: none"> • According to the supervisors order#4 • According to the enterprises' client order#1 • All tasks#1

	college but we didn't meet this kind of situation in the workplace.	
What goals did you set when you come in this enterprise?	Response of the Interviewees: 01: I set the following goals: to show better conduct and be acknowledged in my college and to be equipped with skills pertaining to my career. 02: I came to research the market at the enterprise and grasp the experience to open business in group. 03: I want to be employed in the enterprise where I went for apprenticeship training. This is my goal. 04: My objective was to gain enough skill for my occupation. 05: My objective is to perform my job well. 06: To work actively in the enterprise.	What goals were set when going to enterprises: <ul style="list-style-type: none"> • To show better conduct#1 • To be equipped with skill#2 • To research the enterprise's market#1 • To be employed#1 • To perform job well#1 • To work actively in the enterprise#1
Which factors of the following specifically motivate you to be trained in this enterprise? Can you elaborate them? Is it due to your own interest, if so how do you explain?	Response of the Interviewees: 01: I was not interested in the training. 02: I was observing new things in the enterprise all the time and they interested me to stay. 03: It is due to good social behavior of the workers and the presence of good treatment in the enterprise that interested me to stay. 04: Mainly due to my interest. My interest emanates from my positive attitude towards the occupation. 05: It helped us to understand practically what we gained in the college. This has interested me. 06: I don't know.	What specific factor, was it interest? <ul style="list-style-type: none"> • Yes#4 • No#1 • Irrelevant answer#1
Is it due to your confidence, if so how do you explain?	Response of the Interviewees: 01: There are discouraging and monotonous situations in the hotel. However, I was striving to become competent in my occupation. 02: Not. 03: Yes, I believe that it would be better for me to be employed in the enterprise. 04: Not at all. 05: Yes, because I can easily understand. 06: I don't know.	What specific factor, was it due to confidence? <ul style="list-style-type: none"> • Due to confidence#3 • Not#2 • Irrelevant answer#1
Is it because of the existence of positive attitude by the 'people' in the enterprise, if so which people are they? And how do you explain their behavior?	Response of the Interviewees: 01: Never. 02: Yes, there are experienced workers who are eager to share their experiences. 03: Yes, there are workers who are determined to share experiences. 04: Most of the workers have positive attitude and it has an implication on one's work love. 05: Yes. They have an interest to make us understand things. 06: They tell us what they know. They don't hide what they know to us.	What specific factor, was it due to people? <ul style="list-style-type: none"> • Yes#5 • No#1
Is it because the enterprise equips with special competence of the occupation? If so how do you explain?	Response of the Interviewees: 01: It is not. 02: Yes, it equips skill. 03: Not because of the enterprise, it was rather by the supervisors' competence. 04: It is not. 05: Yes. It helped us to know the things that were not known in the college. 06: I don't know.	What specific factor, was it because the enterprise equips with skill? <ul style="list-style-type: none"> • Yes#2 • No#3 • Irrelevant answer#1
Is it due to external motivators (availability of wage, material incentive, etc.)? If so how do you explain them?	Response of the Interviewees: 01: I did not receive any kind of incentive, either financial or material, during my stay in the hotel. I stayed in the hotel till I finish the term. There was nothing that attracts apprentices in the hotel. 02: There was no. 03: Not.	What specific factor, was it due to external factor? <ul style="list-style-type: none"> • Yes#1 • No#5

	04: There is no such material or financial incentive. 05: It was not done. 06: At times they give us money for tea.	
QUESTIONS ABOUT SKILLS PROVIDED TO APPRENTICES		
Is the enterprise equipped in accordance with the occupational requirements? Explain it.	Response of the Interviewees: 01: It is not well equipped. It has no equipment that are available in the other hotels. 02: The machines at the enterprise are old. The people working on these old machines perform work in traditional way.03: Yes, it is organized according to the occupational requirements. 04: Yes. Both materials and workers, with modest experience, are assigned in the enterprises. 05: Yes. 06: I can't say the enterprise is well equipped.	Is the enterprise equipped : • Yes#3 • No#3
What new knowledge has the training in the enterprise provided you as compared to your college? Can you describe the kind of knowledge you gained?	Response of the Interviewees: 01: It helped me to see the actual implementation of my occupation. I saw what the actual workplace looks like. 02: It created me opportunity to see the current work situation. 03: It helped us to practice more and this in turn enabled us to know more. 04: We gained a lot of skill in the enterprise, as compared to the college. 05: It provided us experience that was not offered in the college. 06: Our college focuses on theory whereas the enterprises focus on practice.	New knowledge from the enterprise: • No mention is made about the knowledge acquired.
What new skill set has the training in the enterprise provided you as compared to your college? Can you describe the kind of skill you gained?	Response of the Interviewees: 01: It helped me to know how to entertain customers' interest, to be obedient, to be patient and to be confident. 02: It helped me to use materials economically. Besides, it changed my mind that there is no unusable material in the enterprises. 03: There is no such new skill. 04: I don't know. 05: It assisted me to gain skill about the world of work. 06: The enterprise shows us the real work situation.	New skill from the enterprise: • How to entertain customers' interest, to be obedient, to be patient and to be confident#1 • How to use materials economically#1 • No new skill#2 • Skill about the world of work#2
How does the enterprise arrange you this kind of program?	Response of the Interviewees: 01: I don't give it 10% for its performance to the enterprise. But the training program helped me to see a lot of things in the actual workplace. 02: There is no unique support to us. They give priority to their own work. 03: It arranges with all what it can. 04: It tries all what it can. 05: I don't know. 06: I don't know.	How does the college arrange: • No assistance#2 • It arranges with all what it can#2 • Irrelevant answer#2
What negative attitudes of yours to the job you chose has the training in the enterprise helped you to change as compared to your TVET College? Can you describe the change?	Response of the Interviewees: 01: I entered into the occupation with interest and I developed a negative attitude toward it. However; the apprenticeship training enabled me to change my negative attitude. I saw the occupation as privileged and respected. 02: Even if the college didn't exert efforts, the enterprise helped me to love work. 03: there was no bad behavior in the enterprise I was working. 04: Nothing. 05: I learned how to easily solve problems related with a job. 06: I had no negative attitude.	What negative did it help you to change: • It should give value to occupations#1. • It should help to love work#1 • It should help how to solve problems#1 • I had no negative attitude before#2 • Irrelevant answer#1
What new knowledge do you expect the enterprise add you in the future?	Response of the Interviewees: 01: I came to know that a close cooperation between colleges and enterprises is vital for the development of skill. I understand that the trainee should link himself with the enterprise for a better occupational development. I also realized that training of this kind should be aligned with the current development trends. 02: It should support us to exercise or practice	What new knowledge in the future: • No mention was made about the new knowledge to be added

	our occupation. 03: It should exert all its efforts. 04: It can better provide, if it works jointly with the college. 05: They should strive for a better way of job. 06: The workers should respect working hours and should comply with enterprise's regulation.	
What new skill set do you expect the enterprise to equip you in the future?	Response of the Interviewees: 01: I believe that the enterprise should pay attention to the training needs of the apprentices by providing them opportunities to practice and facilitate everything to develop their skill. 02: It should delegate a task to apprentices. 03: It should exert all its efforts to help us to practice. 04: I don't know. 05: The workers should be supported by training. 06: It should help us to be acquainted with the new work procedures and latest technologies.	What new skill in the future: <ul style="list-style-type: none"> • It should allow us to practice#3 • It should help with new work procedure#1 • Irrelevant answer#2
What new attitude do you expect the enterprise to change in the future?	Response of the Interviewees: 01: It has to review the apprenticeship training process starting from the beginning to the end. It should make us to imitate the strong points of the enterprise. 02: It should tell us its participation in the market. It should also clearly report us its loss and gain to form positive attitude to the occupation. 03: It should develop positive attitude toward us. 04: It can encourage us by providing, for example, transportation. 05: The enterprises should create a strong link with the colleges. 06: There should be a positive attitude toward apprenticeship training.	What new attitude in the future: <ul style="list-style-type: none"> • It should facilitate to imitate the strong points of the enterprise#1 • It should be transparent#1 • It should show positive attitude toward us#2 • It should strengthen its link with college#1 • It should provide transport facility#1
How should the enterprise organize this kind of skill development program?	Response of the Interviewees: 01: I advise the following ideas: the enterprise should bring both the trainer and the trainee together, respect the trainees' idea and provide feedback and prepare the trainee to be psychologically confident. 02: It should honestly tell to all apprentices on the nature of the work and its profits. 03: In the right way. 04: In a strong way. 05: The enterprise should apply various means of providing training to its workers. 06: I don't know.	How should it organize: <ul style="list-style-type: none"> • It should bring both the trainer and the trainee#1 • It should respect the trainees' idea and provide feedback#1 • It should be transparent#1 • Irrelevant#3
What weaknesses of the enterprise should be improved in the future for a better implementation of apprenticeship training?	Response of the Interviewees: 01: It should do the following: it should make the job professional; it should give value to trainees; it should respect the beneficiaries and it should have positive attitude toward the job. 02: They do not consider safety rules. 03: I observed two weaknesses: The number of apprentices is a bit high and the supervisors do not control us while practicing. 04: Workers should respect working hour. 05: The worker should respect office hours. 06: I saw the following weaknesses: The workers don't respect the working hours and lack coordination.	Weakness to be improved: <ul style="list-style-type: none"> • It should give value to trainees#2 • Workers should encourage trainees to practice#1 • Supervisors should make the job professional#1 • Supervisors lack coordination#1 • It should consider safety rules#1 • The number of apprentices should be less#1 • Workers should respect working hours#3

QUESTIONS ABOUT PROFESSIONAL QUALITIES OF SUPERVISORS

Which of the following ethical/unethical characters of supervisors is dominant during the apprenticeship training program in this enterprise? ... during providing opportunities for apprentices' observation of the occupation? Explain it.	Response of the Interviewees: 01: This may, to some extent, be observed in some of supervisors. However; the majority of supervisors do not provide training opportunities to the apprentices. 02: They do nothing to us. We learn on our own. 03: It could be due to chance, I never observed supervisors with bad behavior. 04: They have some good qualities but they are not enough.05: They don't direct us how to perform a task. 06: The workers have no good work ethics but don't come work on time.	Ethical/Unethical characters of supervisors: <ul style="list-style-type: none"> • They don't provide opportunity for apprentices' observation#2 • Doubtful response#1 • They have no good work qualities#2 • Their good qualities are not enough#1
...during evaluating apprentice performance? Explain it.	Response of the Interviewees: 01: I think all supervisors are expected to evaluate the performance of the apprentices but only few of them do that practically. Surprisingly there are some who do not see us at all. 02: The apprentice should follow safety rules and the enterprise should evaluate on this every day. 03: First they show us how to do a task and then they evaluate us how we are doing it. 04: There are evaluation problems to be improved. 05: They compare the performance of an apprentice with the others to evaluate performance. 06: The workers have rich experience and skill.	Evaluating apprentices performance: <ul style="list-style-type: none"> • They don't evaluate#3 • They evaluate us#2 • Irrelevant answer#1
... during providing technical advice to the apprentice? Explain it.	Response of the Interviewees: 01: They don't provide this kind of advice. 02: There is no. 03: They don't provide appropriate advice. 04 They have some good qualities but they are not enough. 05: I don't know. 06: No, they don't provide us technical advice.	Provide technical advice to the apprentices: <ul style="list-style-type: none"> • No they don't provide #5 • Irrelevant answer#1
... during showing role model in the enterprise? Explain it.	Response of the Interviewees: 01: Not clearly shown to be imitated.02: There is no.03: Yes they show role model to be imitated. 04: There is nothing. 05: I did not notice. 06: They don't show role model since they don't come on time.	Showing role model: <ul style="list-style-type: none"> • They don't show#3 • Yes they show #1 • Not noticed#1 • Irrelevant answer#1
... during providing personal advice? Explain it.	Response of the Interviewees: 01: I observed this once. I noticed that when one commits mistakes they call and provide advice silently. 02: I never faced. 03: Yes, due to our close social relation. 04: They have good qualities but they are not enough. 05: They try to alleviate apprentices' personal problems. 06: They advise us to strictly follow the apprenticeship training.	Providing personal advice: <ul style="list-style-type: none"> • Yes they provide#5 • I never faced#1
... during exchanging grades for money or sexual favors? Explain it.	Response of the Interviewees: 01: I did not face. 02: There is no and it is unthinkable. 03: I never saw this kind of behavior. 04: I never saw this kind of behavior. 05: There is no. 06: I saw no one with this behavior.	Exchanging grades for money or sexual favors: <ul style="list-style-type: none"> • No#6
... during grading is fair and objective and free from bias? Explain it.	Response of the Interviewees: 01: I was not present by the time when my grade was completed. It was my supervisor's boss who filled the form. 02: The supervisors need to pass	Grading is fair and objective and free from bias: <ul style="list-style-type: none"> • Free from bias#3 • Not free from bias#1

	through CoC. After this, he will be effective when assigned at the enterprises. 03: Yes, they see every apprentice equally. 04: At times we see subjectivity. 05: They try to see all apprentices equally. 06: Yes, it is free from bias.	<ul style="list-style-type: none"> • Not certain#1 • Doubt on supervisors assessment quality#1
... during using language that some apprentices might find distasteful? Explain it.	Response of the Interviewees: 01: There was a boss in the hotel who was against apprentices' service. This caused me to feel unhappy. 02: I don't observe good relation between the trainer and trainees nowhere in the enterprise. 03: They never used. 04: Never seen. 05: There is no. 06: As I observed, there was nothing.	Use of language that may embarrass apprentice: <ul style="list-style-type: none"> • There was no#5 • I faced indirect way of expressing embarrassment#1
... during discussing unrelated topics? Explain it.	Response of the Interviewees: 01: In the hotel I was assigned, there was supervisor who was talking on unrelated topics. 02: There is no.03: It is free from this. 04: There are helpful things beyond the training program. 05: There is no. 06: At times, I see them engaged in unrelated discussions.	Discussing unrelated topics: <ul style="list-style-type: none"> • Yes they discuss#2 • No they don't discuss#3 • Irrelevant answer#1
... during preparing him/her for the apprenticeship training? Explain it.	Response of the Interviewees: 01: This does not happen. Instead, it was the apprentice who was striving for the training. 02: It should be arranged for us in terms or interest and vicinity to our home. 03: Yes, because I got the enterprise on my own. 04: There are good conditions. 05: They strive to produce better worker. 06: I don't know.	Preparing for the apprenticeship training: <ul style="list-style-type: none"> • Yes they prepare#2 • No they don't prepare #2 • Irrelevant answer#2
... during expressing ideas or viewpoints that upset some apprentices? Explain it.	Response of the Interviewees: 01: I never faced. 02: There is no. 03: Never. There was no. 04: This kind of behavior is not observed. 05: There is no. 06: I never heard offending ideas.	Expressing ideas that upset some of the apprentices: <ul style="list-style-type: none"> • They don't express#6
... during handling problematic behavior without embarrassing an apprentice, explain it?	Response of the Interviewees: 01: There was, for example; they used to share tips not to embarrass an apprentice. 02: There is no.03: There is.04: They are cautious not to embarrass the apprentice. 05: They take care of the content of their speech. 06: They advise and calm us when we are in problem.	Handling problematic behavior without embarrassing an apprentice: <ul style="list-style-type: none"> • There was no#5 • There was#1
... during feeling secure if an apprentice tells something in confidence? Explain it.	Response of the Interviewees: 01: There is no confidential issue in the enterprise. Everything is open. 02: The trainers keep secrets. 03: They keep secrets. 04: They keep apprentices' secret. 05: They are adults and try to control things systematically.06: Everything is open; there is no confidential thing.	Feeling secure if an apprentice tells something in confidence: <ul style="list-style-type: none"> • They keep secret#4 • No confidential issue#2
... during resolving the apprentice's problem? Explain it.	Response of the Interviewees: 01: It never happened. 02: At times they support us by borrowing money. 03: There is. 04: There are good things but they are not enough. 05: They are adults and try to solve problems systematically. 06: We tried to solve problems by discussion.	Resolving the apprentice's problem: <ul style="list-style-type: none"> • Yes they resolve#5 • Never observed#1
... during making apprentices' feel uncomfortable? Explain it.	Response of the Interviewees: 01: There was. The workers undermine apprentices and assign in an occupation that does not go with previous training background. 02: They don't	Making apprentices' feel uncomfortable: <ul style="list-style-type: none"> • There was no#4 • There were signs#2

	provide us training with modern machines. 03: There is no. 04: There is no this kind of thing. 05: There is no.06: Everybody was cooperating with us.	
... during showing bias of gender or sexual orientation? Explain it.	Response of the Interviewees: 01: There exists. They discriminate apprentices in terms of sex and provide training based on this fact. 02: They give due consideration to ladies. 03: Once a worker entered into the workshop with his work cloth, he would not be allowed for other things to do. 04: I never faced this kind of behavior. 05: There is no. 06: There was no negative attitude towards the apprentices.	Showing bias of gender or sexual orientation: <ul style="list-style-type: none"> • There was#1 • There was no#5
... during referring to an apprentice's ethnicity? Explain it.	Response of the Interviewees: 01: I never faced. 02: It is unthinkable. 03: I don't know. May be all the workers belong to the same ethnic group. 04: There is no this kind of behavior. 05: There is no. 06: There was no this kind of problem.	Referring to an apprentice's ethnicity: <ul style="list-style-type: none"> • There was no#5 • I don't know#1
... during providing mentoring service to all apprentices equally? Explain it.	Response of the Interviewees: 01: There is and there is no. It all depends on the relationship of the apprentice and the supervisor.02: They see all apprentices equally. 03: There is, because they don't assign two apprentices for one worker. 04: They don't provide equal training to all apprentices.05: They don't equally train apprentices. 06: Yes, there was unequal apprenticeship training.	Providing mentoring service to all apprentices equally: <ul style="list-style-type: none"> • Doubtful#1 • They don't train us equally#4 • They train us equally#1
... during coming to training place on time? Explain it.	Response of the Interviewees: 01: They were not coming on time. 02: The supervisor comes on time. 03: Yes, every worker arrives on time. 04: They don't come on time. This is the main problem. 05: They don't come on time. 06: They don't come on time.	Coming to training place on time: <ul style="list-style-type: none"> • They were not coming on time#4 • They were coming on time#2
... during taking apprentices' attendance regularly? Explain it.	Response of the Interviewees: 01: There is and all of us sign in our shifts. 02: They take attendance. 03: Everybody signs when he comes in office. 04: They try to check apprentices without systematic way. 05: We were few and enabled them to control us easily. But there was no.06: There was no attendance.	Taking apprentices' attendance regularly: <ul style="list-style-type: none"> • There was attendance#3 • There was no attendance#3
... during showing socially interactive behavior with the apprentices? Explain it.	Response of the Interviewees: 01: There is. The workers share social responsibilities during funeral and other social events. 02: We do group works at the enterprise and it created the opportunity to interact. 03: Sometimes they hold discussions on various issues. 04: It is in a very good condition. Supervisors have good relation with the apprentices. 05: They are adults and see us as their children. 06: There was no social tie among supervisors.	Showing socially interactive behavior with the apprentices: <ul style="list-style-type: none"> • There was#5 • There was no#1
... during showing unfair treatment of apprentices? Explain it.	Response of the Interviewees: 01: There was but not observed overtly. 02: There was. 03: Every person was seen equally. 04: It was not seen frequently. 05: There was. 06: They were approaching us friendly.	Showing unfair treatment of apprentices: <ul style="list-style-type: none"> • There was#4 • There was no#2
... while lacking knowledge of the	Response of the Interviewees:	Lacking knowledge of the occupation:

occupation? Explain it.	01: Certainly the supervisors do not have enough and sufficient knowledge. But they have passed long history and experience. 02: Since each trainee is assessed alone he is provided with sufficient training. 03: Every worker is competent. 04: Most of the supervisors are apprentices themselves. Surprisingly, they have better skill and knowledge. 05: At times they fail to answer questions. 06: The supervisors had no rich experience in their occupation.	<ul style="list-style-type: none"> • They lack#3 • They don't lack#3
... while lacking skill of the occupation? Explain it.	Response of the Interviewees: 01: There is. They provide an ambiguous training on some unclear issues. Besides, the training does not meet international standards. 02: The apprentices will be trained until they become competent. 03: I think the enterprise may dismiss incompetent workers. 04: I don't know. 05: I don't know. 06: They have enough skills.	Lacking skill of the occupation: <ul style="list-style-type: none"> • They lack#1 • They don't lack#2 • Irrelevant answer#3
... while using limited number of training methods? Explain it.	Response of the Interviewees: 01: Yes, they apply limited training methods and do not use professional procedures. 02: The supervisors should take training and CoC Assessment. I believe this kind of problem will not happen. 03: No. They train us in various ways. 04: Most of the time they use repetitive methods. 05: There are a lot of tools and train us using these tools. 06: They apply multi training methods.	Using limited number of training methods: <ul style="list-style-type: none"> • They apply limited methods#3 • They use various methods#3
.. while expressing negative attitude toward the occupation? Explain it.	Response of the Interviewees: 01: Some of the workers say that we are engaged in an occupation that may cause us to be undermined. 02: There is no. 03: There is no. 04: This is not observed most of the time. 05: There is no. 06: They have negative attitude toward the occupation.	Expressing negative attitude toward the occupation: <ul style="list-style-type: none"> • Express#3 • Don't express#3
... while lacking of professional devotion? Explain it.	Response of the Interviewees: 01: They do not show love in their job. They are in the hotel for the sake of survival otherwise, most of them complain all the time. 02: They have. 03: They have no. 04: Most of the supervisors have devotion. 05: I don't know. 06: They have love in work and insist us for change.	Lacking of professional devotion: <ul style="list-style-type: none"> • They lack#2 • They don't lack#4
What other ethical qualities of the supervisors you want to mention? Explain them.	Response of the Interviewees: 01: They do not give value to apprentices. Instead, they undermine and discourage them. 02: The college should stick to training only. 03: I don't have. 04: I don't have. 05: I don't have. 06: I don't have.	Other ethical qualities they lack: <ul style="list-style-type: none"> • Supervisors undermine apprentices#1 • The college should stick to training#1 • I don't have another comment#4

General information about the FGD participants

Name of the college from which participants were drawn	Participants code	Participants level of training	Sex	
			M	F
Entoto	A	Level 3	X	
	B	Level 3	X	
	C	Level 4		X
	D	Level 4		X
	E	Level 3	X	
	F	Level 4		X
Selam	F	Level 3	X	
	G	Level 3	X	
	H	Level 3		X
	I	Level 4		X
	J	Level 4		X
	H	Level 4	X	

**Table 9: Data obtained from Focus Group Discussion /FGD/
/31 March 2012(9:00-10:30AM) and 7April 2012(9:30-11:00 AM)**

INTERVIEW QUESTIONS	RESPONSES	CODE
How do you explain your interest towards apprenticeship training in general?	<p>Response of FGD Participants: Entoto</p> <ul style="list-style-type: none"> ❖ We know that apprenticeship helps a lot to gain knowledge and to fill trainees' skill gap. ❖ Although it has benefits, the trainers in our college require us to search enterprises on our own. This is not our first time we had gone through the same experience last year. This kind of obligation may have an effect on our choice of training in the enterprises. 	<p>Interest toward APT:</p> <ul style="list-style-type: none"> • College regulation to search enterprises on our own affects our APT interest.
	<p>Response of FGD Participants: Selam</p> <ul style="list-style-type: none"> ❖ It has a lot of benefits. However; it is not implemented in an organized way in our college. We are the ones who search for enterprises for our apprenticeship training. The college should search us the hosting enterprises. We have been observing repetitive tasks at the enterprises where we were assigned. We were not provided with the right kind of training. This has an effect on our interest. 	<p>Interest toward APT:</p> <ul style="list-style-type: none"> • Lacks organization. • We search enterprises • We observe repetitive tasks • We don't get the right kind of APT. All affect our interest
How do you describe the current status of apprenticeship training process in the enterprise you are assigned?	<p>Response of FGD Participants: Entoto</p> <ul style="list-style-type: none"> ❖ Some (10%) of the supervisors don't like our presence in the enterprises. ❖ Some of the supervisors don't tolerate the silly mistakes we may commit ❖ Some of them think that we are trained to replace them as a result they are not helpful for our training. 	<p>The current status of APT:</p> <ul style="list-style-type: none"> • Presence of negative attitude • Supervisors show unethical behavior
	<p>Response of FGD Participants: Selam</p> <ul style="list-style-type: none"> ❖ The trainers in the college don't follow-up the apprenticeship training at the enterprises. ❖ Some supervisors at the enterprises helped us to gain the right kind of knowledge, skill and attitude. They were voluntary to answer our questions. However, supervisors at times don't come on time. ❖ Supervisors sometimes wrongly assign us. ❖ Supervisors sometimes do not observe us while performing a task. 	<p>The current status of APT:</p> <ul style="list-style-type: none"> • No follow-up • Supervisors at time don't come on time • Wrong assignment • Supervisors at time don't follow us.
How are the supervisors assisting you to gain knowledge, skill and attitude in the	<p>Response of FGD Participants: Entoto</p> <ul style="list-style-type: none"> ❖ The training program at the enterprises is based on the old 	How are supervisors assisting:

occupation you chose?	<p>curriculum. So it is hard to gain knowledge, skill and attitude with this old curriculum.</p> <ul style="list-style-type: none"> ❖ It has reciprocity. Both of us, the supervisor and the apprentice, share important experiences each other. At times our supervisors ask us questions on some theoretical knowledge. ❖ Besides, the supervisors don't let us to sit idle. They remind us to busy ourselves. 	<ul style="list-style-type: none"> • They don't let us to sit idle • We share knowledge each other
	<p>Response of FGD Participants: Selam</p> <ul style="list-style-type: none"> ❖ Encourage us to be engaged in practical tasks on our own. Sometimes they are not helpful to respond to our questions. 	<p>How are supervisors assisting:</p> <ul style="list-style-type: none"> • They let us to be engaged on our own • Not volunteer to answer our questions
What problems do you encounter during the process of apprenticeship training in the enterprise you are assigned?	<p>Response of FGD Participants: Entoto</p> <ul style="list-style-type: none"> ❖ The problem of searching and getting enterprise for apprenticeship training is the main problem. ❖ We don't have stipend, soap, tissue paper, food, tea, coffee, milk. ❖ We are not provided with work uniform/clothe 	<p>Problems encountered:</p> <ul style="list-style-type: none"> • Searching enterprises by apprentices • No pocket money • No work uniform
	<p>Response of FGD Participants: Selam</p> <ul style="list-style-type: none"> ❖ Enterprises don't provide sufficient training program and lack good ethical qualities/respecting working time/. It should be avoided. ❖ Lack of commitment and respecting working time are the most serious problems in the enterprise we were assigned. 	<p>Problems encountered:</p> <ul style="list-style-type: none"> • No sufficient training program • Don't respect working time • Lack of commitment
Which of these problems have negative effects on your future career?	<p>Response of FGD Participants: Entoto</p> <ul style="list-style-type: none"> ❖ Earlier we began our college training in an old curriculum. However, a new curriculum has started to operate since the beginning of this year. We were told to be trained based on the new curriculum. This extends our training time in the college. This will have a negative effect on our future career. 	<p>Problems affecting future career:</p> <ul style="list-style-type: none"> • College training policy
	<p>Response of FGD Participants: Selam</p> <ul style="list-style-type: none"> ❖ It is impossible to ascertain that the apprenticeship training is going on in an organized way. ❖ The college should find us hosting enterprises; otherwise, it will have a negative effect on our future career. 	<p>Problems affecting future career:</p> <ul style="list-style-type: none"> • Unorganized APT implementation program • We should not search enterprises.
How do you evaluate the apprenticeship training process in the enterprise you were assigned?	<p>Response of FGD Participants: Entoto</p> <ul style="list-style-type: none"> ❖ We could not observe what we learnt in our college this semester in the enterprise. But the supervisors, to some extent, helped us to practically perform a task. 	<p>Evaluation of APT:</p> <ul style="list-style-type: none"> • Did not observe the practicability of classroom training in the enterprises.
	<p>Response of FGD Participants: Selam</p> <ul style="list-style-type: none"> ❖ The trainers at the college do not regularly follow-up the apprenticeship training. 	<p>Evaluation of APT:</p> <ul style="list-style-type: none"> • Trainers don't follow-up • No training materials were provided

	<ul style="list-style-type: none"> ❖ We were not provided with training materials at the enterprises. ❖ The apprenticeship training at the enterprises does not supplement the college training. We should first complete the courses in the colleges before we are sent to the enterprises. 	<ul style="list-style-type: none"> • We should first finish courses in the college
<p>What measures should be taken to improve the apprenticeship training process in the enterprise you are assigned?</p>	<p>Response of FGD Participants: Entoto</p> <ul style="list-style-type: none"> ❖ The college should search us hosting enterprises on its own ❖ The college should increase the number of hosting enterprises ❖ There should be a regular supervision program by the college 	<p>Measures to be taken:</p> <ul style="list-style-type: none"> • College should search hosting enterprises • There should be more hosting enterprises • There should be regular supervision
	<p>Response of FGD Participants: Selam</p> <ul style="list-style-type: none"> ❖ Above all, the apprenticeship training should be provided in an organized way. Due to this reason, the college should raise various questions/when, where, who, etc. to provide the apprenticeship training/ and should seek their answers. On the part of the trainees, they should prepare themselves for the apprenticeship training/what will I gain, where will I be sent, etc. /. Enterprises, on their part, should provide all kinds of knowledge (practical and theoretical) to the apprentices should respect training time, should inculcate love for work. ❖ The trainees should regularly attend the training program. ❖ The supervisors should exercise fair evaluation system. ❖ The trainers should enforce regular supervision program. ❖ There should be an established communication system between the College and Enterprise. <p>What other points you want to add?</p> <ul style="list-style-type: none"> ❖ With close cooperation among the other TVET Colleges, the TVET agency and our colleges; the current apprenticeship training program should be improved for a better result. ❖ A careful assessment program should be conducted on apprenticeship training before we are assigned for apprenticeship training program. 	<p>Measures to be taken:</p> <ul style="list-style-type: none"> • Organized APT should be provided • Trainees should follow the program • Supervisors should evaluate fairly • Trainers should follow-p • There should be systematic communication system • Stakeholders should improve the current APT condition • There should be assessment before APT



Figure 4: Selam TVET college Auto mechanics apprentices at MMEE

Table 10: Presentation of data generated from observation at MMEE

See the results of the rating by all the observers to item No.2,11,12,31 and 32 in the table below

S.No	Facilities/Services/Training process observed	Availability: Rated by A					Availability: Rated by B					Availability: Rated by C				
		5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
		1.	Accommodation for meetings to discuss relevant apprenticeship training matters					X					X			
2.	The enterprise use notice boards for apprentices					X				X						X
3.	Reserved space in order to handle disciplinary matter with the supervisor or to discuss other confidential matters with apprentice				X		X					X				
4.	Supervisors provide feedback to the apprentices			X					X				X			
5.	Supervisors apply the right procedure of training evaluation			X				X					X			
6.	Supervisors mentor each apprentices frequently			X				X						X		
7.	The enterprise established first aid facilities and services			X				X							X	
8.	The enterprise established communication system with the enterprise			X				X						X		
9.	Relevant data of each apprentice is systematically recorded in the enterprise.			X				X						X		

10.	Code of practice for workplace facilities is explained to the apprentices			X			X						X		
11.	Code of practice for personal protective clothing and equipment is explained to the apprentices					X							X		X
12.	Occupational Health Service/OHS/ in the workplace is provided to apprentices					X							X		X
13.	Supervisors use attendance format all the time	X					X							X	
14.	Supervisors method of training to achieve apprenticeship objectives is explained	X					X						X		
15.	Supervisor and apprentice interact in the workplace	X					X						X		
16.	Apprentices involve in the practical training	X						X					X		
17.	Supervisors show interactive skill	X						X						X	
18.	Supervisors have leading skill	X						X					X		
19.	Supervisors motivate the apprentices	X						X						X	
20..	Supervisors manage the workshop situation		X					X					X		
21.	Supervisors apply participatory training methodologies			X				X						X	
22.	The enterprise provide information in an appropriate form				X			X					X		
23.	There is an adequate supply of clean drinking water in the enterprise		X					X				X			
24.	There is washing facility in the enterprise		X					X				X			

25.	There is toilet facility in the enterprise	X					X					X				
26.	There are rest areas in the enterprise		X				X					X				
27.	There are facilities for eating in the enterprise		X								X		X			
28.	There are facilities Of change rooms in the enterprise	X					X					X				
29.	There are facilities for personal belongings in buildings or structures for the apprentices in the enterprise	X					X						X			
30.	There is shelter while weather conditions make work unsafe for the apprentices	X					X						X			
31.	There is consultation program with apprentices in the enterprise					X						X				X
32.	Training is provided on how to use personal protective equipment to the apprentices					X						X				X
33.	Training on risk reduction through personal protective equipment is provided to the apprentices				X		X							X		

The rating scale: 5= Excessively available,4= Sufficiently available,3= Moderately available, 2= Available,1= Unavailable



Figure 5: Entoto TVET college machine apprentices at ACBTSE

Table 11: Presentation of data generated from observation at ACBTSE

See the results of the rating by all the observers to item No.1,2,3,9,11,12,14,22, 26,28,30,31 and 33 in the table below

S.No	Facilities/Services/Training process observed	Availability: Rated by A					Availability: Rated by B					Availability: Rated by C				
		5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
		1.	Accommodation for meetings to discuss relevant apprenticeship training matters					X					X			
2.	The enterprise use of notice boards for apprentices					X					X					X
3.	Reserved space in order to handle disciplinary matter with the supervisor or to discuss other confidential matters with apprentice					X					X					X
4.	Supervisors provide feedback to the apprentices		X				X						X			
5.	Supervisors apply the right procedure of training evaluation		X					X					X			
6.	Supervisors mentor each apprentices frequently		X						X					X		
7.	The enterprise established first aid facilities and services		X				X									X
8.	The enterprise established communication system with the enterprise			X							X			X		
9.	Relevant data of each apprentice is systematically recorded in the enterprise.					X					X					X
10.	Code of practice for workplace facilities is explained to				X			X				X				

	the apprentices															
11.	Code of practice for personal protective clothing and equipment is explained to the apprentices					X					X					X
12.	Occupational Health Service/OHS/ in the workplace is provided to apprentices					X					X					X
13.	Supervisors use attendance format all the time	X					X					X				
14.	Supervisors method of training to achieve apprenticeship objectives is explained					X					X					X
15.	Supervisor and apprentice interact in the workplace	X						X					X			
16.	Apprentices involve in the practical training			X			X							X		
17.	Supervisors show interactive skill	X					X							X		
18.	Supervisors have leading skill	X						X					X			
19.	Supervisors motivate the apprentices		X						X					X		
20..	Supervisors manage the workshop situation		X							X			X			
21.	Supervisors apply participatory training methodologies			X						X			X			
22.	The enterprise provide information in an appropriate form					X					X					X
23.	There is an adequate supply of clean drinking water in the enterprise			X					X					X		
24.	There is washing facility in the enterprise			X				X						X		
25.	There is toilet facility in the enterprise					X				X				X		

26.	There are rest areas in the enterprise					X					X					X
27.	There are facilities for eating in the enterprise	X									X			X		
28.	There are facilities of change rooms in the enterprise					X					X					X
29.	There are facilities for personal belongings in buildings or structures for the apprentices in the enterprise		X								X		X			
30.	There is shelter while weather conditions make work unsafe for the apprentices					X					X					X
31.	There is consultation program with apprentices in the enterprise					X					X					X
32.	Training is provided on how to use personal protective equipment to the apprentices					X			X					X		
33.	Training on risk reduction through personal protective equipment is provided to the apprentices					X					X					X

The rating scale: 5= Excessively available, 4= Sufficiently available, 3= Moderately available, 2= Available, 1= Unavailable

Table 12: Presentation of data generated from observation at HMMBI

See the results of the rating by all the observers to item No. 1,2,3,8,9,14,16,28 and 29 in the table below

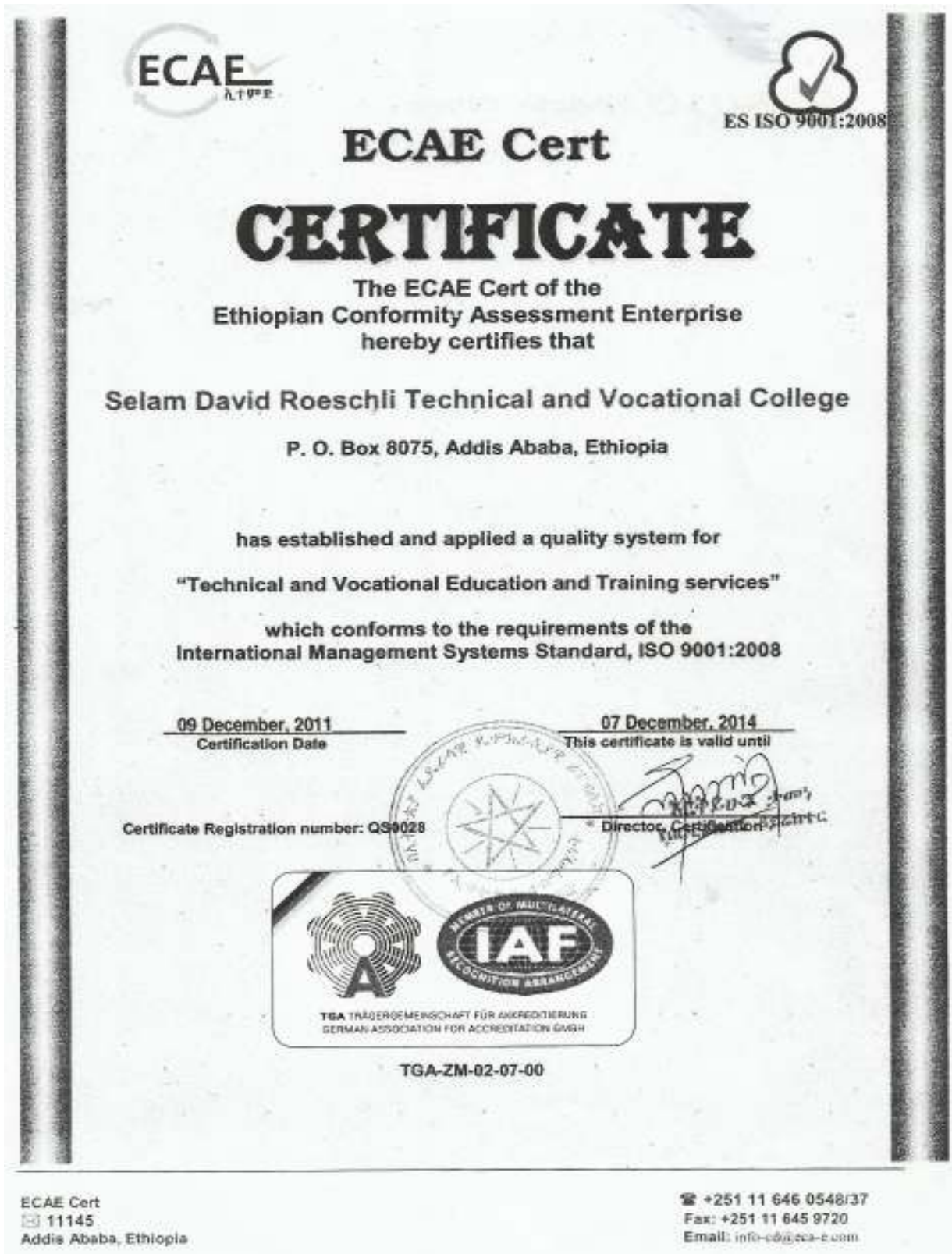
S. No	Facilities/Services/Training process observed	Availability: Rated by A					Availability: Rated by B					Availability: Rated by C				
		5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
1.	Accommodation for meetings to discuss relevant apprenticeship training matters					X					X					X
2.	The enterprise use of notice boards for apprentices					X					X					X
3.	Reserved space in order to handle disciplinary matter with the supervisor or to discuss other confidential matters with apprentice					X					X					X
4.	Supervisors provide feedback to the apprentices	X									X	X				
5.	Supervisors apply the right procedure of training evaluation	X							X							X
6.	Supervisors mentor each apprentices frequently	X					X					X				
7.	The enterprise established first aid facilities and services	X									X	X				
8.	The enterprise established communication system with the enterprise					X					X					X
9.	Relevant data of each apprentice is systematically recorded in the enterprise.					X					X					X
10.	Code of practice for workplace facilities is explained to the	X					X					X				

	apprentices															
11.	Code of practice for personal protective clothing and equipment is explained to the apprentices	X									X	X				
12.	Occupational Health Service/OHS/ in the workplace is provided to apprentices	X				X										X
13.	Supervisors use attendance format all the time	X									X	X				
14.	Supervisors method of training to achieve apprenticeship objectives is explained					X					X					X
15.	Supervisor and apprentice interact in the workplace	X									X	X				
16.	Apprentices involve in the practical training					X					X					X
17.	Supervisors show interactive skill	X							X			X				
18.	Supervisors have leading skill	X						X				X				
19.	Supervisors motivate the apprentices	X						X				X				
20.	Supervisors manage the workshop situation	X					X					X				
21.	Supervisors apply participatory training methodologies				X			X				X				
22.	The enterprise provide information in an appropriate form				X						X	X				
23.	There is an adequate supply of clean drinking water in the enterprise	X					X					X				
24.	There is washing facility in the enterprise	X					X					X				
25.	There is toilet facility in the enterprise	X					X					X				

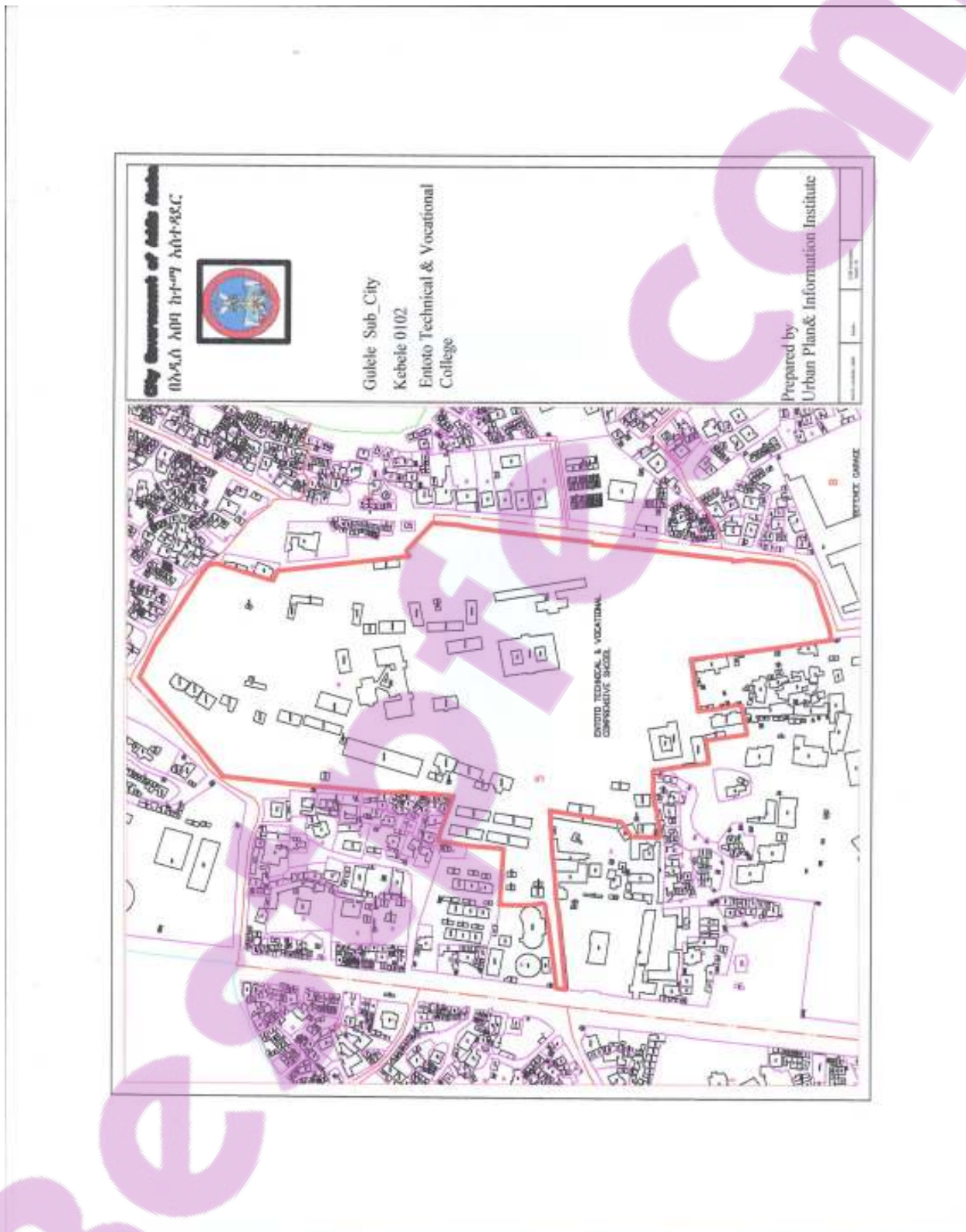
26.	There are rest areas in the enterprise	X						X				X				
27.	There are facilities for eating in the enterprise	X						X				X				
28.	There are facilities Of change rooms in the enterprise					X						X				X
29.	There are facilities for personal belongings in buildings or structures for the apprentices in the enterprise					X						X				X
30.	There is shelter while weather conditions make work unsafe for the apprentices	X						X				X				
31.	There is consultation program with apprentices in the enterprise					X						X	X			
32.	Training is provided on how to use personal protective equipment to the apprentices	X					X					X				
33.	Training on risk reduction through personal protective equipment is provided to the apprentices	X					X					X				

The rating scale: 5= Excessively available,4= Sufficiently available,3= Moderately available, 2= Available,1= Unavailab

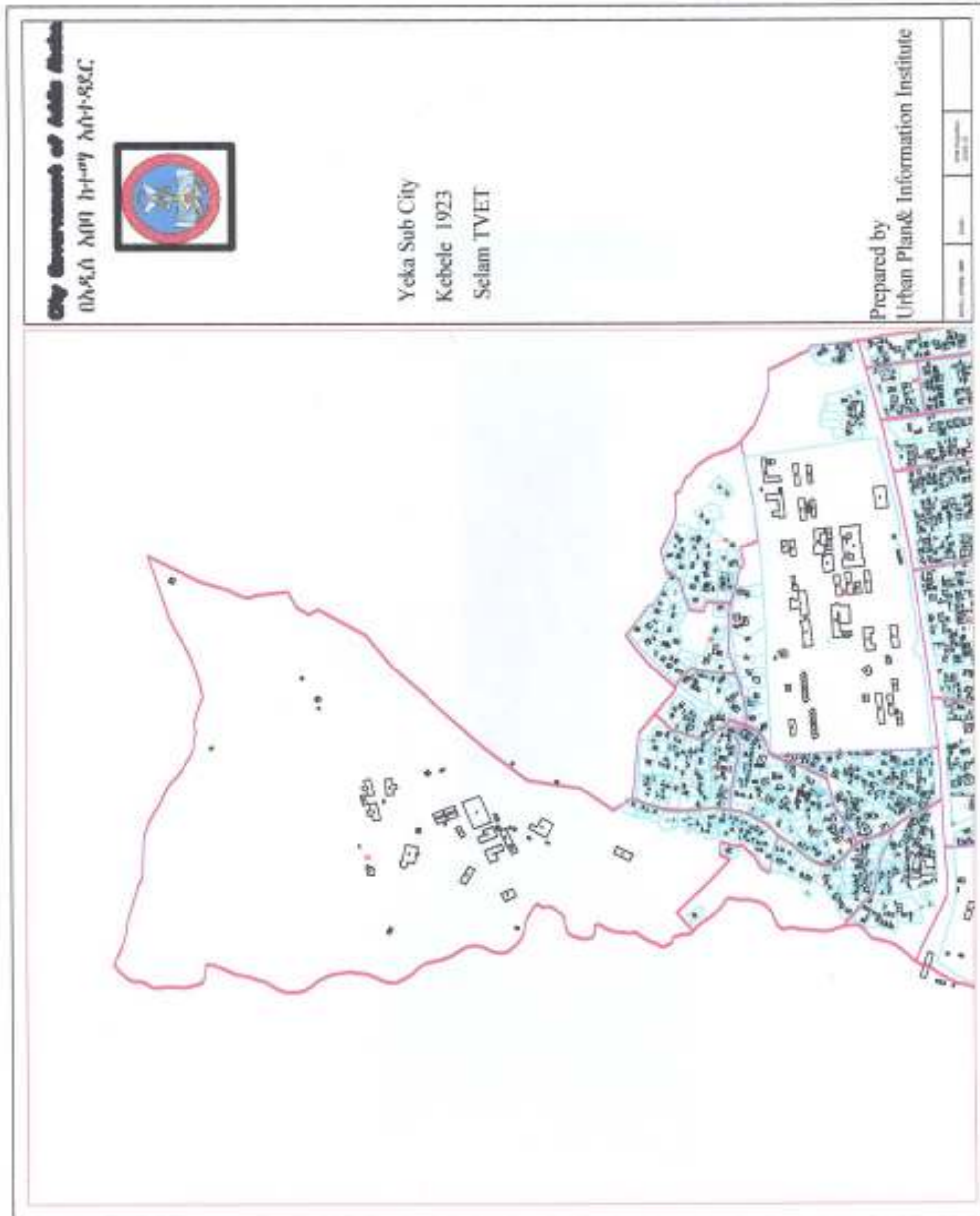
ANNEXURE 11: ISO award to Selam college



ANNEXURE 12: Map of Entoto TVET College



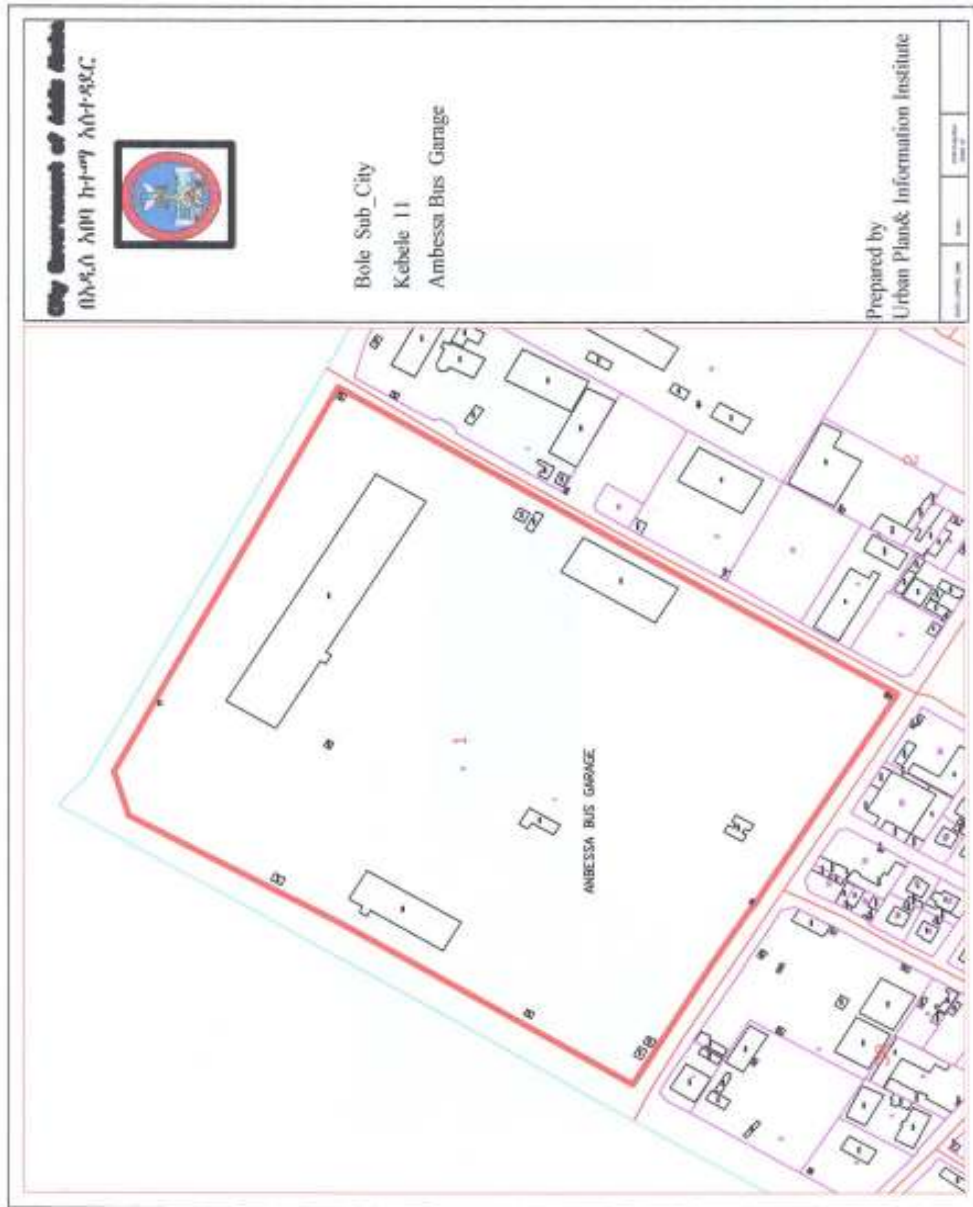
ANNEXURE 13: Map of Selam TVET College



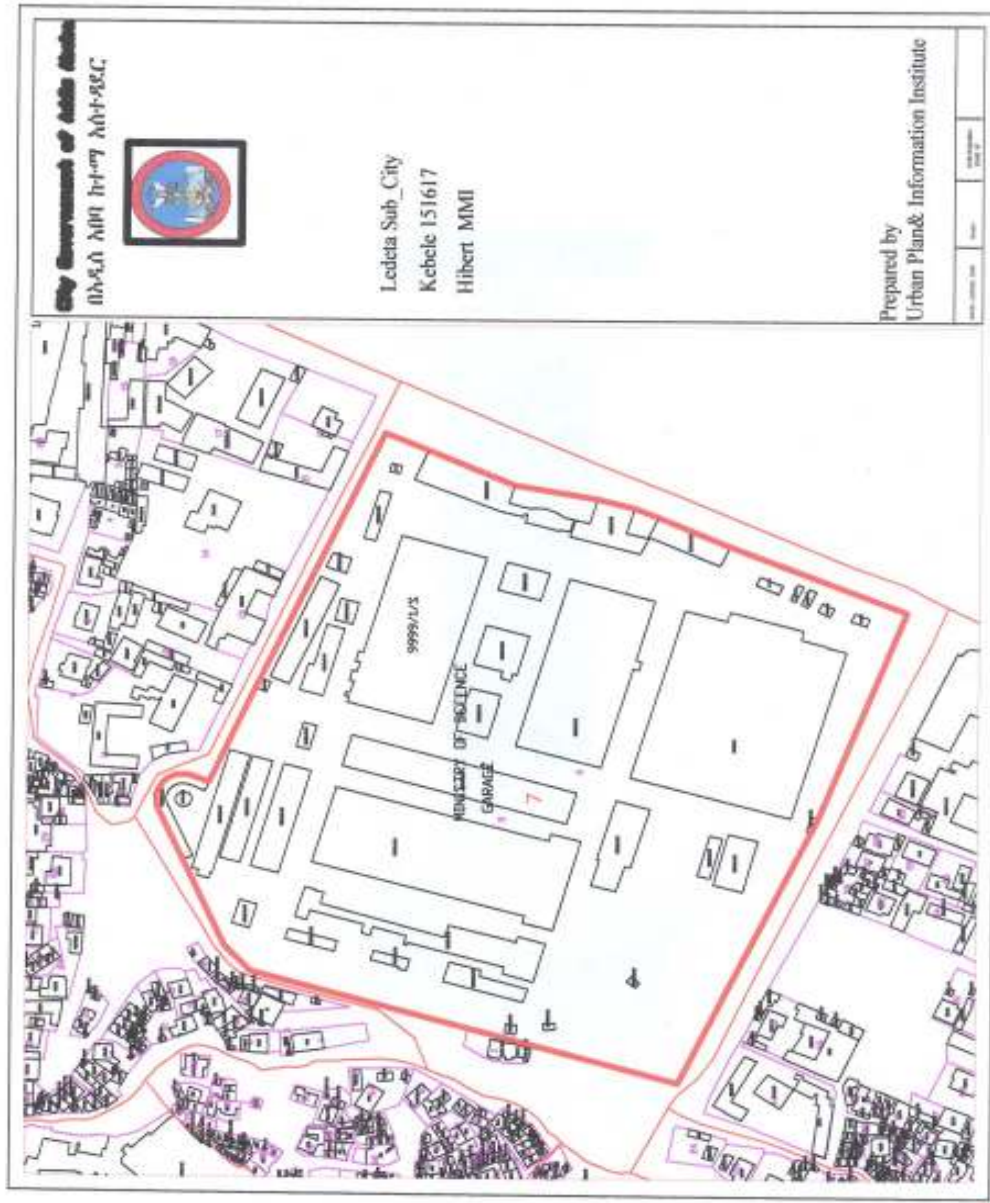
ANNEXURE 14: Map of MMEE



ANNEXURE 15: Map of ACBTSE



ANNEXURE 16: Map of HMMBI



ANNEXURE 18: Letter of permission from Entoto TVET college

Date: 22 March 2012

To: Entoto TVET College

Addis Ababa

Re: Letter of application

I would like to conduct a research study entitled, "THE IMPLEMENTATION OF APPRENTICESHIP TRAINING PROGRAM IN THE ADDIS ABABA ENTERPRISES."

Your college's administration is kindly requested to let me contact the following participants: college leader (dean or vice dean), college trainer, apprenticeship coordinator and college apprentices in your TVET college to provide me information on the above topic. The research is conducted under the auspices of PROF. M.W. LUMADI (SOUTH AFRICAN SCHOLAR) from the department of teachers' education. If you have questions you can contact him through Lumadmw@unisa.ac.za, +27837362231 or P.O. Box 392 Pretoria, South Africa. I would like to thank you in advance.

With best regards,



Demessew Alemu Woldetsadik

To Ab Tesfaye
Haste it please
Samy
22 March 12

ANNEXURE 19: Letter of permission from Selam TVET college

Date : 30 March 2012

To: Selam TVET College

Addis Ababa

Re: Letter of application

I would like to conduct a research study entitled, "THE IMPLEMENTATION OF APPRENTICESHIP TRAINING PROGRAM IN THE ADDIS ABABA ENTERPRISES."

Your college's administration is kindly requested to let me contact the following participants; college leader (dean or vice dean), college trainer, apprenticeship coordinator and college apprentices in your TVET college to provide me information on the above topic. The research is conducted under the auspices of PROF. M.W. LUMADI (SOUTH AFRICAN SCHOLAR) from the department of teachers' education. If you have questions you can contact him through Lumadmw@unisa.ac.za, +27837362231 or P.O. Box 392 Pretoria, South Africa. I would like to thank you in advance.

With best regards,


Demessew Alemu Woldetsadik



ANNEXURE 20: Letter of permission from MMEE

Date : 5 April 2012

To: Marathon Motors Engineering Enterprise

Addis Ababa

Re: Letter of application

I would like to conduct a research study entitled, "THE IMPLEMENTATION OF APPRENTICESHIP TRAINING PROGRAM IN THE ADDIS ABABA ENTERPRISES."

Your organization's administration is kindly requested to let me contact the following participants; supervisors and college apprentices (who came from Entoto and Selam TVETV) in your enterprise to provide me information on the above topic. The research is conducted under the auspices of PROF. M.W. LUMADI (SOUTH AFRICAN SCHOLAR) from the department of teachers' education. If you have questions you can contact him through Lumadmw@unisa.ac.za, +27837362231 or P.O. Box 392 Pretoria, South Africa.

I would like to thank you in advance.

With best regards,



Demessew Alemu Woldetsadik

Ato Zeina
Dis Compa
per the

5/4/2012



ANNEXURE 21: Letter of permission from ACBTSE

Date : 9 April 2012

To: Anbesa City Bus Transport Service Enterprise

Addis Ababa

Re: Letter of application

I would like to conduct a research study entitled, "THE IMPLEMENTATION OF APPRENTICESHIP TRAINING PROGRAM IN THE ADDIS ABABA ENTERPRISES."

Your organization's administration is kindly requested to let me contact the following participants; supervisors and college apprentices (who came from Entoto and Selam TVETV) in your enterprise to provide me information on the above topic. The research is conducted under the auspices of PROF. M.W. LUMADI (SOUTH AFRICAN SCHOLAR) from the department of teachers' education. If you have questions you can contact him through Lumadmw@unisa.ac.za, +27837362231 or P.O. Box 392 Pretoria, South Africa. I would like to thank you in advance.

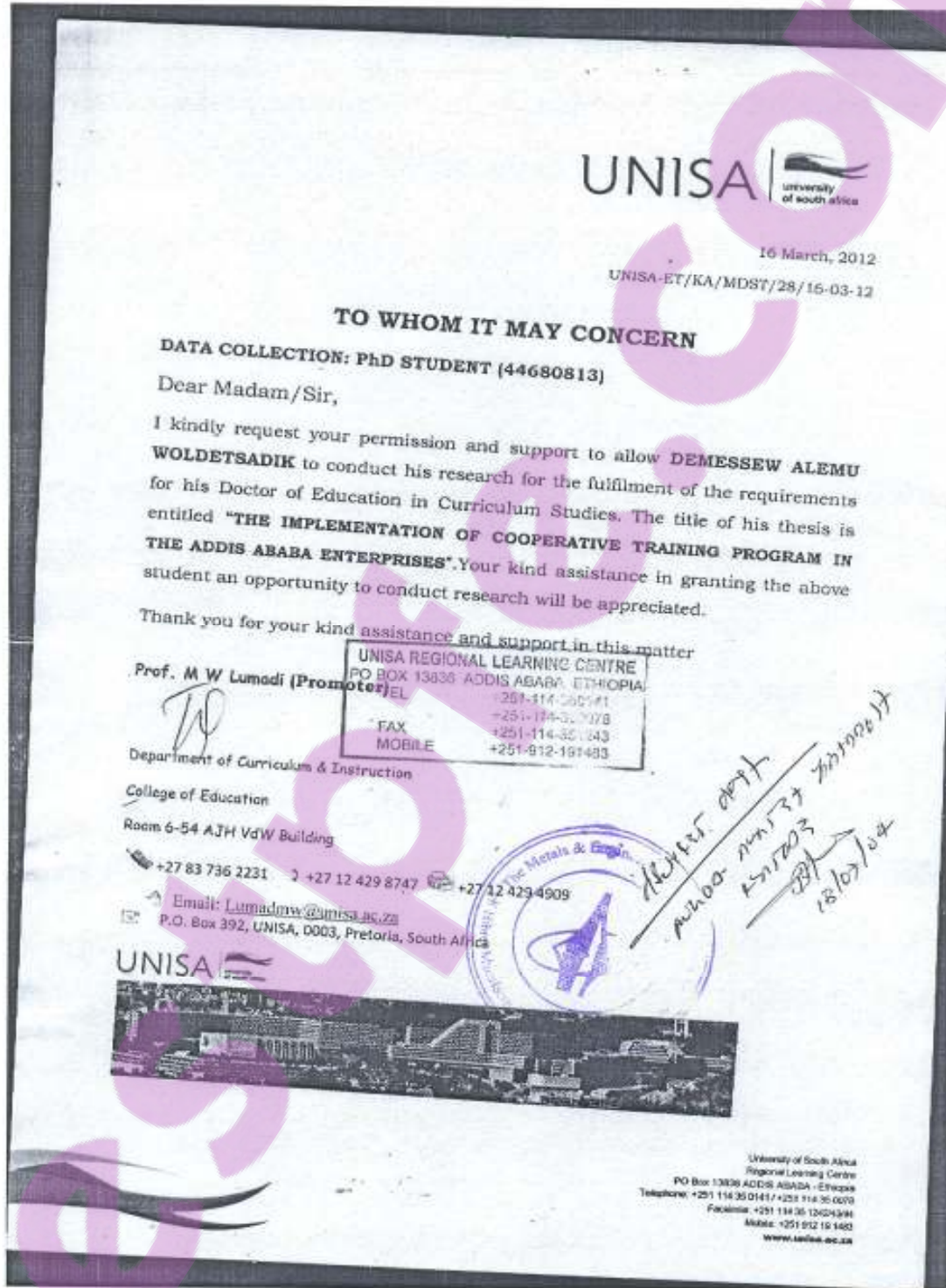
With best regards,



Demessew Alemu Woldetsadik



ANNEXURE 22: Letter of permission from HMMBI



ANNEXURE 23: Table A: Two-dimensional matrices representation of the data gathered from TVET Agency and TVET colleges

Issues having implications for the research problems	Views of the research participants on the issues								
	TVET Agency OBTE	TVET Agency APTC	TVET Agency M & EE	ECL	SCL	ECAPTC	SCAPTC	ECT	SCT
Challenges in practical training	----	----	----	DP	IP	----	----	----	----
Views on the status of APTgoing on 'somewhat' smoothly?	,APT is in a "good start"	APoPIOaA, LCIT, LoMTfTaT, DfIS, LFUbT, LCS, FtUI, INFDC	----	----	----	----	----	----
Views on the partnership of APT	PGMHE	LAoPSH	APoPIO	TASOTaE	CSSFTaE	FtSMU, UtPCTP, EWAA, APoPSH	ENWtOR, ENTAON, EIUR, ESMAA	RoEtP, EFtSMU, WAoA	UtAATE, EWAA
Views on M & E of APT	TVETCAEtI	ADDM	OBTCPIDRfAPTI, MESDFuAPT	TASOTaE	CSSFTaE	TCaJICCE	MVCbWO	CTaEtF	VCaT
Challenges of APT	LCoPTaS, LoRF, PoGMHE	LoA, AAW, OUG, IoM, LoFB	LAoPIOaA, LoCIT, LoMoTfTaT, DoISFT, LoFUbT, LCS, FtUIaINFDaC, FtUIaINFDaC	PiCI,	DP	LCAaE	WAoA, UtGVtIT	CIAGL, LEC, FP, LI, LWU, LTF, LPSF, UtGMHE	WA, LIoPA, AMHE
Views on how to alleviate APT challenges	APtASH, SMbTVETC GACoC,	POTA	CAAIOaT, CAAIOaT, SMaEaFBSSP, TCSI, TPSS, CSSI, ISaTTtCaSUS	TSL, APSA, ESSMU	TVE, TAAP, TWCWE	ESPTItC, ESbPoC	ASGVtAPT, CTSFT, CLSFUAPT, ESPCaP	ESE, SSM/	PAaA, CSRVAaE

Procedures to assign apprentices at the enterprises	----	----	----	----	----	ARTICiE	BoSoE	ATSPT	OSaTT
How colleges select enterprises for APT	-----	----	-----	WIAP	TVETCTAib DVM,	ITG, SETCFG, TPWbPbTaS, PWbC	FSEC, AMaEoC, AYTaYTT, ATWTA	BbTaT	VC
How APT started in TVET colleges	-----	-----	----	----	----	BoIOTOT, HDWE, AWFP	IIAPTbSS, IEAPTPoLI	TiEtDEAtI/	BSEC
Which levels of apprentices were assigned for APT	----	----	-----	----	-----	WAtALTs	WALTaLTT	ATSPT	OSYaTYTs
Length of APT	----	----	----	-----	----	DoC	OM	BoUC	OSaTYTTPiAP TfTMs
Factors that limit APT	----	-----	-----	-----	-----	RoEtP, EFtSMoU, WAoA	UtAAaE, EWAA	CIAtGL, LEC, FP, LI, LoWU, LoTF, LPSF, UtGMHE	WA LIoPoA, AMHE
How apprentices were evaluated in the enterprises	----	-----	-----	-----	-----	DWSoCT	LtE, BAOF, BAoNF	LtS	LtS
How colleges communicate with enterprises	----	----	----	---	-----	UB, TM	MTUL, BOP	-----	-----
How colleges address APT	-----	-----	-----	TSbL, APSbA	TVE, TAAP, TWCWE	EPDMWSH	AMaDwE	-----	-----

implementation problems				ESSMU,					
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Key:

TVET=Technical Vocational Education and Training, **OBTE**=Outcome Based Training Expert APTC, **APTC**=Apprenticeship Training coordinator, **M&EE**=Monitoring and Evaluation Expert, **ECL**=Entoto College Leader, **SCL**=Selam College Leader, **ECAPTC**=Entoto College Apprenticeship Training Coordinator, **SCAPTC**=Selam College Apprenticeship Training Coordinator, **ECT**=Entoto College Trainer, **SCT**=Selam College Trainer, **C1**=Column 1, **C2**=Column 2, etc.

Row 1: C4= Disciplinary problem/**DP**/, C5=Problem of Facility/**FP**/

Row 2: C1=...going on ‘somewhat’ smoothly? C2=,APT is in a “good start”, C3= awareness problem on the part of industry owners and apprentices /APoPIOaA/, lack of commitment in trainers/LCIT/, lack of means of transportation for trainers and trainees /LoMTfTaT/, there is a demand of insurance service from the trainees /DfIS/, there is lack of follow up by the trainers /LFUBT/, there is lack of communication system /LCS/, failure to use innovations/ FtUI/, improved new findings, discoveries, and creativities/INFDC/

Row 3:C1= Problem of getting multi hosting enterprises/PGMHE/,C2= lack of awareness on the part of stakeholders/LAoPSH/,C3= There is awareness problem on the part of industry owners and apprentices/APoPIO/, C4= Trainers always supervise the occupational training at the enterprises./TASOTaE/,C5= Colleges should strictly follow their trainees during their training process at the enterprises/CSSFTaE/,C6= failure to sign memorandum of understanding /FtSMU/, unable to prepare common training plans/UtPCTP/,Enterprises wrongly assigning apprentice/EWAA/, awareness problem on the part of all stakeholders/APoPSH/, C7= Enterprises not willing to accept our request/ENWtOR/, Enterprises are not training according to our need/ENTAON/, Enterprises impose unbearable responsibilities/EIUR/, Enterprises sometimes mis–assign apprentices/ESMAA/,C8= Refusal of enterprises to participate/RoEtP/, Enterprises failure to sign memorandum of understanding/EFtSMU/,wrong assignment of apprentices/WAoA/,C9= Unable to assign all trainees at the enterprises/UtAATE/, Enterprises wrongly assign apprentices/EWAA/.

Row 4:C1= TVET Colleges, as main actors, are expected to implement APT/TVETCAEtI/,C2= The Agency does not directly monitor/ADDM/, C3=Outcome Based Training Core Process is directly responsible for APT implementation./OBTCPiDRfAPTI/, M & E section does follow up APT implementation./MESDFuAPT/.C4= Trainers always supervise the occupational training at the enterprises./TASOTaE/,C5= Colleges should strictly follow their trainees during their training process at the enterprises /CSSFTaE/,C6= Trainers and counseling and job integrating coordination experts/TCaJICCE/,C7=

Mainly the vocational counselor but with others/MVCbWO/,C8= College trainers are expected to follow up/CTaEtF/,C9= Vocational counselor and trainer/VCaT/

Row 5:C1= Lack of commitment on the part of trainers, trainees and supervisors/LCoPTaS/, Lack of regular follow-up/LoRF/, problem of getting multi hosting enterprises/PoGMHE/,C2=Lack of awareness/LoA/, Assigning apprentices wrongly/AAW/, offering unfair grades/OUG/, Incapable of mentoring /IoM/, Lack of feedback/LoFB/,C3= There is awareness problem on the part of industry owners and apprentices/LAoPIOaA/, Lack of commitment in trainers/LoCIT/, Lack of means of transportation for trainers and trainees/LoMoTfTaT/, demand of insurance service from the trainees/DoISFT/, There is lack of follow up by the trainers/LoFUbT/, There is lack of communication system/LCS/, Failure to use innovations/FtUIaINFDaC/, improved new findings, discoveries, and creativities/FtUIaINFDaC/,C4= Why he described 'Flood', problem in college Facility/PiCF/,C5= Disciplinary problems/DP/,C6= Lack of continues assessment at the enterprises/LCAaE/,C7= Wrong assignment of apprentices/WAoA/, Unable to give value to in campus training./UtGVtIT/,C8= Can't implement according to the guide line/CIAGL/, Lack of enterprise cooperation/LEC/, Financial problem/FP/, Lack of incentive/LI/, Lack of work uniform/LWU/, Lack of transportation fee/LTF/, Lack or providing sanitation facilities/LPSF/, Unable to get more hosting enterprises/UtGMHE/,C9= Wrong assignment/WA/, Lack of interest on the part of apprentices/LIoPA/, Absence of more hosting enterprises/AMHE./

Row 6: C1= awareness program to all stakeholders/APtASH/, Special measure by TVET Colleges-graduation after CoC/SMbTVETCGACoC/.,C2=Preparing one time awareness program/POTA/,C3= Creating awareness among the industry owners and the trainees/CAAIOaT/, Creating awareness among the industry owners and the trainees/CAAIOaT/, Sustainable monitoring, evaluation and feedback systems should be placed/SMaEaFBSSP/,The trainees' commitment has to be improved/TCSI/, Transportation problems should be solved /TPSS/, The communication system should be improved/CSSI/, Improving share and transfer technologies through creativities and scaling up system /ISaTTtCaSUS/,C4= There should be a law/TSL/, Awareness program should be arranged/APSA/, Enterprises should sign memorandum of understanding/ESSMU/,C5= To visit enterprises/TVE/, To arrange awareness programs /TAAP/, To work closely with enterprises/TWCWE/, C6= Enterprises should provide timely information to colleges/ESPTItC/, Enterprises should be partners of colleges/ESbPoC/,C7= Apprentices should give value to APT/ASGVtAPT/, College trainers should follow trainees/CTSFT/, The college leaders should follow-up APT/CLSfUAPT/, Enterprises should perceive colleges as partners/ESPCaP/,C8= Enterprises should be encouraged/ESE/, Supervisors should be motivated/SSM/,C9= Provide advice to apprentices/PAtA/, Counselors should regularly visit apprentices at the enterprises/CSRVAaE/

Row 7:C6= Any registered trainee in the college is entitled/ARTICiE/,C7= Based on the size of the enterprise/BoSoE/, Based on training performance/BoTP/, Based on the trainee's conduct/BoTC/,C8= All trainees should pass through/ATSPT/,C9= Only 2nd and 3rd year trainees/OSaTT/.

Row 8:C4= we identify apprentices' profile/WIAP/,C5= TVET Colleges should be creative to attract the industry by designing various means./TVETCTAibDVM/,C6= Identify trainees' gaps/ITG/, Search enterprises that can fill the gap/SETCFG/, Training plan will be prepared by trainer and

supervisor/TPWbPbTaS/, Trainees will be assigned/TWA/, Performance will be checked/PWbC/,C7= First seek enterprises' consent/FSEC/, Assign mostly at the end of a course /AMaEoC/, Assign year two and three trainees/AYTaYTT/, Assign trainees with transport allowance/ATWTA/,C8= Both by trainer and trainees/BbTaT/,C9= Vocational counselor/VC/

Row 9:C6= Based on the information obtained through our trainers/BoIOTOT/, Hold discussion with the enterprise/HDWE/, Acknowledge when finish the program/AWFP/, C7= If it is an internal, APT it is by setting schedule/IIAPTBS/, If it is external, through phone, letter or in person/IEAPTTPoLI/,C8= The trainer is expected to do every activity to implement/TiEtDEAtI/,C9= By seeking enterprises' Cooperation/BSEC/.

Row 10:C6= We arrange to all level of trainees/WAtALTs/,C7= We arrange to level 3 and 4 trainees/WALTaLTT/, C8= All trainees should pass through /ATSPT/,C9= Only 2nd and 3rd year trainees/OSYaTYTs/

Row 11:C6= Depends on the nature of competence/DoC/,C7= One month/OM/,C8= Based on the unit of competence/BoUC/,C9= Only 2nd and 3rd year trainees take part in the apprenticeship training for two months./OSaTYTTPiAPTfTMs/.

Row 12:C6= Refusal of enterprises to participate/RoEtP/, Enterprises failure to sign memorandum of understanding/EFtSMoU/, Wrong assignment of apprentice/WAoA/,C7= Unable to assign all trainees at the enterprises/UtAAaE/, Enterprises wrongly assign apprentices/EWAA/,C8= Can't implement according to the guide line/CIAtGL/, Lack of enterprise cooperation/LEC/, Financial problem/FP/, Lack of incentive/LI/, Lack of work uniform/LoWU/, Lack of transportation fee/LoTF/, Lack or providing sanitation facilities/LPSF/, Unable to get more hosting enterprises/UtGMHE/,C9= Wrong assignment/WA/, Lack of interest on the part of apprentices/LIoPoA/, Absence of more hosting enterprises/AMHE/.

Row 13:C6= Done with the support of college trainers/DWSoCT/,C7= Left to the enterprises/LtE/, By applying the old format/BAOF/, But aware of the new format/BAoNF/,C8= Left to supervisor/LtS/,C9= Left to the supervisor/LtS/.

Row 14:C6= Using brochures/UB/, Through meetings/TM/,C7= Most of the time using letters/MTUL/, At times by observing Personally/BOP/.

Row 15:C4= There should be a law/TSbL/, Awareness program should be arranged/APSbA/, Enterprises should sign memorandum of understanding/ESSMU/,C5=To visit enterprises/TVE/, To arrange awareness programs/TAAP/, To work closely with enterprises/TWCWE/,C6= Examine the problem during the meeting with stakeholders/EPDMWSH/,C7= Arrange meeting and discuss with the enterprises/AMaDwE/

ANNEXURE 24: Table B: Summary of the data gathered from supervisors

Issues having implications for the research problems	Views of the supervisors on the issues		
	MMEE	ACBTSE	HMMBI
How enterprises provide apprenticeship training	Based on apprentices' college training background	By simply setting a program for observation and practicing	<ul style="list-style-type: none"> • By providing orientation • Pinning with experienced supervisors
Level of apprentices sent to enterprises for apprenticeship training	level 3 and 4	Level 1 to 4	Level 1 to 4
Availability of special rooms for apprentices	not available	not available	not available
How apprenticeship training in the enterprise began	By the interviewee's initiative	By colleges' request	By colleges' request
Procedure for organizing resources to implement apprenticeship training in the enterprise	<ul style="list-style-type: none"> • No special budget • Provide pocket money and materials 	no special budget or material	no special budget or material
Procedure for evaluating the performance of the apprentices	<ul style="list-style-type: none"> • Using the enterprise's way of evaluating workers • Using the college's format 	<ul style="list-style-type: none"> • While working, by the supervisor • At the end by employing the format sent from the college 	<ul style="list-style-type: none"> • While working with the supervisor • At the end by employing the format sent from the college.
Methods of recording and notifying the achievements of the apprentices in the enterprise	<ul style="list-style-type: none"> • By filling out the format. • Recording the results in its data base 	By filling out the format and without recording in the enterprise	By filling out the format and without recording in the enterprise
Means of communicating the achievements of the apprentices with the TVET College	With an official report letter through the apprentices	With an official report letter through the apprentices	With an official report letter through the apprentices
Ways of setting an implementation program for apprenticeship training	According to the needs of the apprentices	No special program	Not specifically mentioned
Measures taken to alleviate: <ul style="list-style-type: none"> ▪ Budgetary problem ▪ Time problem ▪ Training materials problem ▪ Mentor problem ▪ With whom should you work to solve each of the above problems? Can you explain 	<ul style="list-style-type: none"> • Budget, time, training materials; no problem regarding these. • No mention was made about mentor. 	<ul style="list-style-type: none"> • Budget needs attention • Time needs attention • Training materials don't need. • Mentor problems need attention 	No budget, time, training materials and mentor problems
Challenges enterprises face during the implementation of apprenticeship training	<ul style="list-style-type: none"> • Manner of apprentices • Lack of knowledge on safety 	<ul style="list-style-type: none"> • High number of apprentices requiring the training 	<ul style="list-style-type: none"> • Apprentices' number • Time (since we use it for

		<ul style="list-style-type: none"> • Manner of apprentices 	production as well) <ul style="list-style-type: none"> • Trainees' conduct; since some of them were not devoted • Lack of pocket money • Lack of follow up on the part of colleges trainers
The frequency of cooperation with TVET Colleges to discuss challenges of apprenticeship training	Not frequently but may be by coincidence	Reminding the problem to the trainers and discuss on it	No discussion with the stakeholders
Views on the importance of cooperating	All claim it as important	All claim it as important	All claim it as important

ANNEXURE 25: Table C: Summary of the data gathered from apprentices

Issues having implications for the research problems	Views of the apprentices on the issues
Apprentices' motivational factors	
Know the reasons why apprenticeship is organized in the enterprises	<ul style="list-style-type: none"> • to see the classroom training more tangible#1 to gain more skill using tools at the enterprise#1 • opens the chance for employment#1 • to interpret the theoretical skill#1 • to gain job skill#1 • to prepare for future work#1
Motivating factors for the apprentices' stay in the enterprises	<ul style="list-style-type: none"> • To have my own job#1 • To acquaint with tools not available at the college#1 • Irrelevant answer#4
Assignment of apprentices /by chance or choice/	<ul style="list-style-type: none"> • Choice#4 • Chance#2
Things apprentices like and dislike in this enterprises	<p>Thinks apprentices like and dislike:</p> <ul style="list-style-type: none"> • I dislike bad behaviors of some workers and rules of the enterprise#1 • I dislike the behavior of some customers#1 • I like the freedom for workers#2 • I like and dislike nothing#1 • I like workers who don't come on time#2 • I like workers who work hard#1 • Irrelevant answer#1
Goals set by apprentices when going to the enterprises	<ul style="list-style-type: none"> • To show better conduct#1 • To be equipped with skill#2 • To research the enterprise's market#1 • To be employed#1 • To perform job well#1 • To work actively in the enterprise#1
Specific motivating factors:1/ Interest	<ul style="list-style-type: none"> • Yes#4 • No#1 • Irrelevant answer#1
2/ Apprentices' confidence	<ul style="list-style-type: none"> • Due to confidence#3 • Not#2 • Irrelevant answer#1
3/Attitude of the 'people' in the enterprise	<ul style="list-style-type: none"> • Yes#5 • No#1
4/ Enterprise's capacity	<ul style="list-style-type: none"> • Yes#2 • No#3 • Irrelevant answer#1
Apprentices' skill development factors	Views of the apprentices on the issues
Alignment of enterprise's organization with the occupational requirements	<ul style="list-style-type: none"> • Yes#3 • No#3
New skills added to the apprentices by the enterprises	<ul style="list-style-type: none"> • How to entertain customers' interest, to be obedient, to be patient and to be confident#1 • How to use materials economically#1 • No new skill#2 • Skill about the world of work#2
Arrangement for skill acquisition at the enterprises	<ul style="list-style-type: none"> • No assistance#2 • It arranges with all what it can#2 Irrelevant answer#2
Assistance to change the negative attitudes of apprentices toward the job	<ul style="list-style-type: none"> • It should give value to occupations#1. • It should help to love work#1 • It should help how to solve problems#1 • I had no negative attitude before#2 • Irrelevant answer#1
New skill programs set by the enterprise to equip the apprentices	<ul style="list-style-type: none"> • It should allow us to practice#3 • It should help with new work procedure#1 • Irrelevant answer#2

Arrangement of skill acquisition program in the future	<ul style="list-style-type: none"> • It should bring both the trainer and the trainee#1 • It should respect the trainees' idea and provide feedback#1 • It should be transparent#1 • Irrelevant#3
Weaknesses of the enterprise to be improved	<ul style="list-style-type: none"> • It should give value to trainees#2 • Workers should encourage trainees to practice#1 • Supervisors should make the job professional#1 • Supervisors lack coordination#1 • It should consider safety rules#1 • The number of apprentices should be less#1 • Workers should respect working hours#3
Professional qualities of supervisors having implication for apprentices' training	Views of the apprentices on the issues
Ethical/unethical characters of supervisors that dominated during the apprenticeship training program in this enterprise: Providing opportunities for apprentices' observation of the occupation	<ul style="list-style-type: none"> • They don't provide opportunity for apprentices' observation#2 • Doubtful response#1 • They have no good work qualities#2 • Their good qualities are not enough#1
Evaluating apprentices' performance	<ul style="list-style-type: none"> • They don't evaluate#3 • They evaluate us#2 • Irrelevant answer#1
Providing technical advice to the apprentice	<ul style="list-style-type: none"> • No they don't provide #5 • Irrelevant answer#1
Show role model in the enterprise	<ul style="list-style-type: none"> • They don't show#3 • Yes they show #1 • Not noticed#1 • Irrelevant answer#1
Grading was fair, objective and free from bias	<ul style="list-style-type: none"> • Free from bias#3 • Not free from bias#1 • Not certain#1 • Doubt on supervisors assessment quality#1
Discussing unrelated topics	<ul style="list-style-type: none"> • Yes they discuss#2 • No they don't discuss#3 • Irrelevant answer#1
Preparing apprentices for the apprenticeship training	<ul style="list-style-type: none"> • Yes they prepare#2 • No they don't prepare #2 • Irrelevant answer#2
Providing mentoring service to all apprentices equally	<ul style="list-style-type: none"> • Doubtful#1 • They don't train us equally#4 • They train us equally#1
Coming to training place on time	<ul style="list-style-type: none"> • They were not coming on time#4 • They were coming on time#2
Taking apprentices' attendance regularly	<ul style="list-style-type: none"> • There was attendance#3 • There was no attendance#3
Lacking knowledge of the occupation	<ul style="list-style-type: none"> • Lack#2 • Don't lack#4
Using limited number of training methods	<ul style="list-style-type: none"> • They apply limited methods#3 • They use various methods#3
Expressing negative attitude toward the occupation	<ul style="list-style-type: none"> • Express#3 • Don't express#3
Lacking of professional devotion	<ul style="list-style-type: none"> • Supervisors undermine apprentices#1 • The college should stick to training#1 • I don't have another comment#4

ANNEXURE 26: Table D: Summary of facilities and training services that were not available at the enterprises.

Enterprise observed	Facilities and training Services to be improved
MMEE	The enterprise did not use notice boards for apprentices
	Code of practice for personal protective clothing and equipment was not explained to the apprentices
	Occupational Health Service/OHS/ in the workplace was not provided to apprentices
	There was no consultation program with apprentices in the enterprise
	Training was not provided on how to use personal protective equipment to the apprentices
ACBTSE	Accommodation for meetings to discuss relevant apprenticeship training matters was not available
	No reserved space in order to handle disciplinary matter with the supervisor or to discuss other confidential matters with apprentice
	Relevant data of each apprentice was not systematically recorded in the enterprise
	Code of practice for personal protective clothing and equipment was not explained to the apprentices
	Occupational Health Service/OHS/ in the workplace was not provided to apprentices
	Supervisors method of training to achieve apprenticeship objectives was not explained
	The enterprise did not provide information in an appropriate form
	There were no rest areas in the enterprise
	There were no facilities of change rooms in the enterprise
	There was no shelter while weather conditions make work unsafe for the apprentices
	There was no consultation program with apprentices in the enterprise
	Training on risk reduction through personal protective equipment was not provided to the apprentices
HMMBI	Accommodation for meetings to discuss relevant apprenticeship training matters was not available
	The enterprise did not use notice boards for apprentices
	No reserved space in order to handle disciplinary matter with the supervisor or to discuss other confidential matters with apprentice
	The enterprise did not establish communication system with the enterprise
	Relevant data of each apprentice was not recorded in the enterprise.

	Supervisors method of training to achieve apprenticeship objectives was not explained
	Apprentices did not involve in the practical training
	There were no facilities of change rooms in the enterprise
	There were no facilities for personal belongings in buildings or structures for the apprentices in the enterprise

ANNEXURE 27: Table E: Apprentices' motivational factors

Apprentices' motivational factors								
Know the reasons why apprenticeship is organized in the enterprises	Motivating factors for the apprentices' stay in the enterprises	Assignment of apprentices/by chance or choice/	Things apprentices like and dislike in this enterprises	Goals set by apprentices when going to the enterprises	Specific motivating factors: 1.Interest	2. Apprentices' confidence	3. Attitude of the 'people' in the enterprise	4. Enterprise's capacity to deliver the training
to see the classroom training more tangible#1	To have my own job#1	Choice#4	I dislike bad behaviors of some workers and rules of the enterprise#1	To show better conduct#1	Yes#4	Due to confidence#3	Yes#5	Yes#2
to gain more skill using tools at the enterprise#1	To acquaint with tools not available at the college#1	Chance#2	I dislike the behavior of some customers#1	To be equipped with skill#2	No#1	Not#2	No#1	No#3
opens the chance for employment#1	Irrelevant answer#4		I like the freedom of workers#2	To research the enterprise's market#1	Irrelevant answer#1	Irrelevant answer#1		Irrelevant answer#1
to interpret the theoretical skill#1			I like and dislike nothing#1	To be employed#1				
to gain job skill#1			I like workers who don't come on time#2	To perform job well#1				
to prepare for future work#1			I like workers who work hard#1	To work actively in the enterprise#1				
				Irrelevant answer#1				

ANNEXURE 28: Table F:Apprentices’ skill development factors

Apprentices’ skill development factors						
Alignment of enterprise’s organization with the occupational requirements	New skills added to the apprentices by the enterprises	Arrangement for skill acquisition at the enterprises	Assistance to change the negative attitudes of apprentices toward the job	New skill programs set by the enterprise to equip the apprentices	Arrangement of skill acquisition program in the future	Weaknesses of the enterprise to be improved
Yes#3	How to entertain customers’ interest, to be obedient, to be patient and to be confident#1	No assistance#2	It should give value to occupations#1	It should allow us to practice#3	It should bring both the trainer and the trainee#1	It should give value to trainees#2
No#3	How to use materials economically#1	It arranges with all what it can#2	It should help to love work#1	It should help with new work procedure#1	It should respect the trainees’ idea and provide feedback#1	Workers should encourage trainees to practice#1
	No new skill#2	Irrelevant answer#2	It should help how to solve problems#1	Irrelevant answer#2	It should be transparent#1	Supervisors should make the job professional#1
	Skill about the world of work#2		I had no negative attitude before#2		Irrelevant#3	Supervisors lack coordination#1
			Irrelevant answer#1			It should consider safety rules#1
						The number of apprentices should be less#1
						Workers should respect working hours#3

ANNEXURE 29: Table G: Professional qualities of supervisors that have implications for apprentices’ training

Professional qualities of supervisors that have implications for apprentices’ training													
Providing opportunities for apprentices’ observation of the occupation	Evaluating apprentices’ performance	Providing technical advice to the apprentice	Show role model in the enterprise	Grading was fair & objective and free from bias	Discussing unrelated topics	Preparing apprentices for the apprenticeship training	Providing mentoring service to all apprentices equally	Coming to training place on time	Taking apprentices’ attendance regularly	Lacking knowledge of the occupation	Using limited number of training methods	Expressing negative attitude toward the occupation	Lacking professional devotion
They don’t provide opportunity for apprentices’ observation#2	They don’t evaluate#3	No they don’t provide #5	They don’t show#3	Free from bias#3	Yes they discuss#2	Yes they prepare#2	Doubtful#1	They were not coming on time#4	There was attendance#3	They lack#2	They apply limited methods#3	They express#3	Supervisors undermine apprentices #1
Doubtful response#1	They evaluate us#2	Irrelevant answer#1	Yes they show #1	Not free from bias#1	No they don’t discuss#3	No they don’t prepare #2	They don’t train us equally#4	They were coming on time#2	There was no attendance#3	They don’t lack#4	They use various methods#3	They don’t express#3	The college should stick to training#1
They have no good work qualities#2	Irrelevant answer#1		Not noticed#1	Not certain#1	Irrelevant answer#1	Irrelevant answer#2	They train us equally#1						I don’t have another comment#4
Their good qualities are not enough#1			Irrelevant answer#1	Doubt on supervisors assessment quality#1									