

IMPLEMENTATION OF APPRENTICESHIP IN
THREE GOVERNMENT COLLEGES AT ARBA MINCH



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List of Acronyms

ANOVA	Analysis of Variance
ETP	Education and Training Policy
FDRE	Federal Democratic Republic of Ethiopia
GNAG	Ghana National Association of Garage
HSC	Health Science College
ITTU	Institute of Intermediate Technology Transfer Units
ILO	International Labor Office
KTI	Kumasi Technical Institute
MDPI	Management Development and Productivity Institute
MoE	Ministry of Education
NGO	Non-Government Organization
NNOAS	Nigerian National Open Apprenticeship System
SNNPR	Southern Nations, Nationalities and Peoples Region
TTC	Teachers Training College
TAFE	Technical and Further Education
TVET	Technical and Vocational Education and Training
USD	United State Dollar
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization

Abstract

The main purpose of the study was to see the implementation of apprenticeship training in the three government colleges at Arba Minch. To this end, an attempt was made to look in to the criterion for selecting and placement of trainees on apprenticing organizations, arrangements and selection procedures of apprenticing centers. Opinions and views (of trainees, trainers, supervisors and deans) on the adequacy and appropriateness of training period, evaluation and supervision of trainees at the work place, the relation between theory and practice, and efforts made by colleges to improve the training programs were treated.

The study employed descriptive analysis in regular programs of the three colleges selected from teaching (TTC), health (HSC), technical and vocational education and training (TVET) sectors. The Subjects of the study were 3 deans (v/deans), 3 apprenticeship coordinators/vocational counselors, 84 trainers, 273 trainees and 15 apprenticeship centers. Trainees were selected through stratified random sampling technique while trainers were selected through purposive and random sampling techniques.

The Information obtained through questionnaires, interviews and document analysis were analyzed using both descriptive and inferential statistics such as percentages and analysis of variance (ANOVA) including chi-square(x^2) test and F-test at the 0.05 significance level.

The finding of the study revealed that availability of supervisors and occupation were widely used criterion to select apprenticing organizations in TTC and HSC while interest of apprenticing organizations was the dominant factor in selecting apprenticeship centers for TVET trainees. Placement of apprentice to practice centers was done by agreement between colleges and apprenticing organizations. The size of trainees sent to apprenticeship centers was determined by college's management in TTC, trainers in HSC and vocational counselor in TVET College. The implementation of apprenticeship based on the legal framework was very limited.

Apprenticing organizations should pay incentives depending on the duration of training and type of occupation trainees engaged. As well, there should be responsible organ that determine the content, structure, duration of training period and the standard of the training. Serious attention should be given in coordinating traditional apprenticeship with modern once so that trainees can gain and adapt self-employment opportunities in the informal sectors.

CHAPTER ONE

INTRODUCTION

This part of the thesis deals with the background to the study, statement of the problem, significance of the study, delimitation of the study, limitations of the study, design of the research, organization of the study and operational definitions of terms.

1.1 Background to the Study

As Ethiopia is one of the least developed countries of the world, shortage of skilled manpower affected its development not to accelerate. Even though many factors can be listed for this, the education and training system that the country used had its own contribution. The Government of the Federal Democratic Republic of Ethiopia (FDRE) realized that the education and training system has to be designed in a way that strengthens individuals and society's problem solving capacity, ability and culture through science and technology. Hence, the FDRE has launched Education and Training Policy (ETP) since 1994 to achieve the immediate work force needs of the country.

The Education and Training Policy of Ethiopia adopted in (1994) emphasized on the development of problem solving capacity, culture and ability in the content of education. According to this document (ETP, 1994: 9), the main objective of education in Ethiopia is to satisfy the country's skilled work force needs by providing training in various skills in different levels. One of the areas that the ETP has given due attention and action priority is to provide Technical and Vocational Education and Trainings for those who leave school from any level of education. Among those diversified training areas the one that are offered for those who completed grade ten for the development of middle level manpower was launched in 2001 in all regions of the country. Technical and Vocational Education and Training is divided in to training for Agriculture, Health , Teachers Training, industrial, commercial, building and construction, garment technology and service trainings (MoE, 2002: 91). The Government of the Federal Democratic Republic of Ethiopia has also set Technical and Vocational Education and Training Proclamation (No. 391/2004) to provide legal frameworks for the implementation of Technical and Vocational Education and Training on March 2004. One of the main objectives of the proclamation is:

To ensure that technical and vocational education and training program produces capable manpower, it is deemed necessary to establish under which trainees undergo apprenticeship training in the productive and service rendering enterprise.

Based on the proclamation, MoE prepared a guideline to implement apprenticeship program successfully. The curriculum developed by MoE (2003:8) allocates at least 312 hours for out of school apprenticeship training. Apprenticeship program integrate school and work based learning by placing students in real work environment where they have an opportunity to learn social skills needed to become effective and productive workers in high skilled occupation that do not require college degree (Chadd and Andrson, 2005). Masresha (2004:5) on his part said that the purpose of apprenticeship in enterprise is aimed to familiarize trainees with real work life who eventually qualify self or wage employee in their specialized areas. Apprenticeship connects vocational schools (colleges/training centers) with companies that help trainees to improve their practical skill and social interaction (Yekunoamlak, 2000). He added that apprenticeship programs conducted in different organizations contribute the quality of vocational graduates to satisfy the immediate skilled work force needs of the society.

Apart from the theory given in the classroom, trainees are expected to gain occupational skills during the apprenticeship. Technical and vocational education and training proclamation (No. 391/2004) clearly indicates the duties and responsibilities of training colleges/centers, apprenticing organizations and trainees to get the maximum result from the apprenticeship training. To achieve the objectives, training colleges and apprenticing organizations are expected to work together in the selection of appropriate apprenticing centers, assigning capable supervisors at the work place and evaluating apprentice according to the guideline.

Hence, the purpose of this thesis was to see whether practical trainings at the work place are running properly in the three colleges under the study. Specifically, it tried to see the implementation of apprenticeship with reference to Arba Minch Teachers Training College (TTC), Arba Minch Health Science College (HSC) and Arba Minch Technical and Vocational Education and Training (TVET) College. These Colleges are found in Arba

Minch town, the capital of Gamo Gofa zone, in the Southern Nations Nationalities and Peoples Region (SNNPR) about 505 km South of Addis Ababa. Arba Minch Teachers Training College was established as teachers training institute (TTI) in 1987 whereas Arba Minch Health Science College (established in 1996) and Arba Minch Technical and Vocational Education and Training College (established in 1996) are designed to give both certificate and diploma programs. Nowadays, TTC is running the 10+1 and 10+3 programs while HSC and TVET College have the 10+1, 10+2 and 10+3 programs.

1.2 Statement of the Problem

Technical and Vocational Education and Training help individuals to develop desirable and effective work habit with necessary knowledge and skill of an occupation. It also increases individual's intellectual capacity and personality in an integrated way to have all round participation in socio-economic growth of the country (Harrison, 2000).

Modern industries and service offering organizations require workers who are capable of applying their knowledge and skill in a flexible and adaptable way. However, Atchoarena and Dulluc (2002) found that many African Countries' Technical and Vocational Education and Training institutions are not able to adapt the new structure of the labor market and new requirement of modern industries in the formal and informal sectors. Among the many factors that contribute to the mismatch between the work force demand of industries and the trained labor produced by training institutions, Masresha (2004) had expressed that the less coordination between training institutions and industries is a major factor in developing countries. He also indicated that the large number of trainees some how compared to available opportunities and reluctant of enterprises/service organizations to cooperate greatly affected conducting apprenticeship program in Ethiopia.

Due to such and other circumstances, apprenticeship program in Ethiopia is not at the required pace to satisfy the intended goals. The reasons behind may be inappropriate interpretation and feeling of apprentice, lack of awareness among staff members in training Colleges, adequate information are not provided to staff members in apprenticing organizations and the community. Perhaps, the criteria used in selecting apprenticing

organizations and placement of apprentice, inappropriate treatment of apprentice in the organization, less attention given to supervise and evaluate the apprentice and lack of continuous assessment of the training programs may be some other factors that affect apprenticeship programs in Ethiopia. Hence, this research tried to answer the following basic questions:

- ▶ How the apprenticing organizations (centers) are chosen and what proper arrangements are made to effect apprenticeship programs?
- ▶ How apprenticing organizations and assigning colleges assist apprenticeship program?
- ▶ To what extent is knowledge gained through theory supported the apprenticeship program?
- ▶ What are the problems observed in the implementation of the apprenticeship, and what measures have been taken to address these problems?

1.3 Significance of the Study

Apprenticeship program is now becoming a hot issue in Ethiopia. Increasing the skills of workers through more education and vocational training has given great attention in the Ethiopian Educational System. Similarly, the rapidly changing economy and civil service require well skilled work force and well-educated society that can respond properly to various development tasks of the country. Hence, successful implementations of apprenticeship programs help to satisfy the countries skilled manpower need in different trades and levels. However, there are problems that holdback the successful implementation of apprenticeship training programs that may possibly affect the overall socio-economic growth of the country. For this reason, conducting the study on the implementation of apprenticeship training programs could have the following importance.

- ❖ It gives feedback to the three colleges in order to evaluate and improve the quality as well as accessibility of work based training programs in the area.
- ❖ It gives chance to colleges to share experiences and learn from each other.
- ❖ It helps the colleges to asses whether their training programs are satisfying the skilled workforce requirements of the country in the formal and informal sectors.

- ❖ It creates awareness to stakeholders that apprenticeship programs are advantageous to them as they can employ young workers who are familiar to their organization so that they can contribute in reducing youth unemployment in the country.
- ❖ It may also provide information to researchers and curriculum planners to undertake further investigation on apprenticeship programs in the Regional and National level.

1.4 Delimitation of the Study

The result of the research would have been more comprehensive if it had covered both Government and Non-Government Colleges at Arba Minch. Specifically, it would have been better if both regular and non-regular programs of the three colleges were included. Nevertheless, the study confined itself to regular programs of three government Colleges only. Yet, the researcher believed that the finding from this study would still be indicatives of the whole apprenticeship programs running in Arba Minch.

1.5 Limitations of the Study

As apprenticeship training is a new program in Ethiopia, shortage of research material in the Ethiopian context was a problem to the researcher. Absence of written documents such as attendance sheets, duration of apprenticeship period and evaluation results given by supervisors in apprenticing organizations were challenges of this thesis writer. Similarly, registrars were not voluntary to give (show) evaluation results of apprentice and the researcher was not able to compare results given by supervisors in apprenticeship offering organizations. Since TTC trainees were attending practices during the time of data collection, the researcher was forced to extend the fieldwork for extra 15 days until they finished their practices. Due to this extension, the researcher faced serious financial problem and time constraint to finalize the study according to the time scheduled.

1.6 Design of the Study

Methodology

The method used to carry out this research was descriptive. Descriptive study was selected because the study needs to examine the implementation of apprenticeship training

programs in the stated colleges and these colleges can share information to give appropriate treatment. In view of that, the study also needs to direct possible suggestions on the implementations of the apprenticeship training based on the findings to achieve the intended goals.

Subject of the Study

The subjects of the study were 3rd year trainees in 10+3 program, 2nd year trainees in 10+2 program, trainers, deans, vocational counselors/apprenticeship coordinators and supervisors (owners) of organizations. Hence, the population of the study consists of 1355 trainees, 187 trainers, 3 deans, 3 vocational counselors/apprenticeship coordinators and 15 apprenticeship centers. Out of these, 3 (100%) deans and 3(100%) apprenticeship coordinators, 108 (60%) of trainers, and 116 (20%) of TTC, 105 (20%) of HSC and 101 (40%) of TVET trainees were selected as samples of the study. Here the sample percentage of TVET trainees was greater than the other two colleges as the number of trainees in each field of study was very low compared to TTC and HSC, a 20% sample of small number may not be good representative. First year trainees in all of the programs were excluded from the study because they did not attend any practical training at the work place during the time of data collection.

Sampling Techniques

Trainee respondents were selected through stratified random sampling technique while trainer respondents were selected through purposive sampling and simple random sampling technique (purposive sampling was used to include all Department Heads). Deans, vocational counselors/apprenticeship coordinators and supervisors (owners) in organizations were selected through available sampling technique because of their limited number and distance from the center Arba Minch respectively.

Data Source

The data for the study were obtained from both primary and secondary sources. Books, journals, universal declarations and legal documents that reflect the experience of apprenticeship training programs were considered as secondary sources. Primary data were

obtained from apprentices, teachers/trainers, deans/vice deans, vocational counselor/apprenticeship coordinator and supervisors (owners) in the enterprises. Record document in the enterprises and Colleges about apprenticeship program in general and apprentice in particular were also the main sources of data for this research.

Procedures of Data Collection

Two types of questionnaires were designed to collect data from trainees and trainers. Both types of Questionnaires were classified into parts such as general background of respondents, arrangement and placement of trainees, linkage between theory and practice, implementation, problems and measures taken to solve the problems. Unstructured interviews were another instrument used in the study to collect data from supervisors (owners) in the organizations, vocational counselors (apprenticeship coordinators) and college deans. The interviews were focused on issues such as views, opinions, problems and solution to improve the implementation of apprenticeship training at the actual work place. Interview discussions were held with Amharic and the responses were translated to English. Amharic was selected for interview discussions because it was convenient to communicate with the interviewees. Document analysis was also conducted to have over all information about respondents.

Data Analysis (Management)

The data collected through data gathering instruments were analyzed using both descriptive and inferential statistics. Percentage was applied in describing the general background of respondents such as age, sex qualification, service years and some alternative items. Analysis of variance (ANOVA) such as chi-square (χ^2) test and F- ratio test were done (at $\alpha= 0.05$ significance level) to find out whether statistically significant difference exists between the study groups. The data obtained from interviews held with deans, apprenticeship coordinators and supervisors (owners) in apprenticing organizations were treated qualitatively.

1.7 Operational Definitions of Terms

- ❖ **Basic Skill:** Fundamental expertise required for a particular task or occupation, which includes manual dexterity and/ or mental aptitude (UNESCO, 1978).
- ❖ **Basic Training:** a training given in a school or undertaking in the fundamentals of an occupation or a group of occupation, may qualify trainees for employment or provide a basis for specialization; may be recognized as a phase of initial training or constitute a part of re-training (UNESCO, 1978).
- ❖ **Mentor/supervisor:** an individual assigned by apprenticing organization to assist and evaluate trainees at the work place.
- ❖ **Technical and vocational education:** is education designed to train and educate students in specific and modern field of vocational skills for students who have completed grade ten and show sufficient desire and inclination to train in the field of their choice (MoE, 1994)
- ❖ **On-the-job training:** a training given at work place to improve the skills for which trainees are participating.

1.8 Organization of the Study

The study was organized in to four chapters. The first chapter deals with the introduction that includes the basic questions raised and the procedure followed to attempt the problems. The second chapter was based on literature review. Data analysis and interpretation was presented in chapter three. The last chapter deals with the summery of the findings, conclusion and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

In order to have a brief theoretical framework on implementation of apprenticeship training programs, the following chapter provides the major work done by different scholars in the area under the study.

2.1 Overview of Apprenticeship

One of the objectives of education is to transmit knowledge to the next generation for the satisfaction of work force needs of the society. The method of transmitting knowledge and skill differs from time to time and society to society. Throughout history, men and women have obtained knowledge and learnt skills through accident, observation, trial and error, formal and informal learning and combinations of these (Ray, 2001). These ancient peoples were transmitting their knowledge and skill to their sons and daughters at a place of work simultaneously with productive activities. Evans (1971:9) expressed this fact as:

The oldest method of meeting work force needs was for the father to pass on to his sons and the mother to pass on to her daughters acquired from their parents, plus what they had learned by trial and error during a generation of work.

Later on, the development of humankind brings technological revolutions such as the substitution of agriculture for hunting and the substitution of bronze for stone tools. As a result, transmission of family heritage was no longer a satisfactory educational program for workers in the newly generated occupations. Due to the socio- economic development of the society, transmission of family heritage and unconscious learning was not satisfactory and the need to transmit knowledge in a planned and organized method arose (Mekonenn, 2004). That means training by persons other than parents through planned and organized form was developed. Such planned and organized training system (called traditional apprenticeship) was initiated in ancient Palestine, Rome, Greek, and Egypt aimed to combine the best family instruction with on- the- job training through experienced workers (Evans, 1971).

Apprenticeship has a long history extending back to early Egyptian and Babylonian times. Four thousands years ago, Babylonians, Egyptians, Greeks, Palestine's and Romans were

transmitting knowledge and skill in the form of apprenticeship from father to son and mother to daughter at a place of work as a way of learning while working, particularly for the craft or trade occupations (Evans, 1971; Ray, 2001).

In the early 1800s industrial revolution brings the development of powerful machinery and increase demand of mass production. At that time, apprenticeship was a common form of entry to skilled occupations, including many of the professions. As the economies of the advanced countries moved through the industrial age and into the 20th century, vocational education institutions were established and companies decided to train their own staff (Ray, 2001). This brings the decline of conventional (indigenous) apprenticeship and existence of modern apprenticeship (Atchoarena and Dulluc, 2002). The awareness of demonstration what to be achieved and how it might be achieved should be followed by practices emerged (Seden, 1994). It means that practices followed by feedback became the major instructional technique for many programs in different countries. As a result, the link between practical and theoretical courses in an enterprise and in training centers became very essential to increase the employability of people. Since then, different countries are using different apprenticeship training models.

2. 1.1 Worldwide Trends of Apprenticeship

The world we live is changing rapidly due to the advancement of science and technology. The change in technology brings new management system in organizations, which affects the whole work environment and the work force. This modern work condition requires trained workers who are capable of applying their knowledge and skill in accordance with the changing technology and management. To get such competitive work force, countries are using different mechanisms of training labor force in their technical and vocational schools.

Most industrialized countries of Europe and some Latin American countries use enterprise-training system. They provide initial and continuing in-service training offered by enterprises to their employees throughout their working life (Gasskov, 2000). Others like Germany and German-speaking countries are applying the dual apprenticeship training system on which both schools and enterprises are considered as training sites.

Next to the German-speaking countries, apprenticeship is common in Australia though its model is different from that of Germany. Trade-training apprenticeship model in Australia has been the major technique of training for both the traditional crafts (such as carpenter, plumber, hairdresser and metalworker) and more contemporary trade occupations such as vehicle mechanic and electrician (Ray, 2001). This writer also added that apprenticeship was an important form of training in England until recent years governed by employment and training act of 1948 while it failed to evolve in the United States because of the dynamic nature of the US economy and its labor markets in the 19th and early 20th centuries.

The United States focus on apprenticeship training system has been an alternative means of providing skills for students who do not wish to pursue post-secondary education (Ferej, 1997). This type of training is over seen by the Bureau of Apprenticeship and Training, established within the U.S. Department of Labor in 1937. The training period varies from two to five years, with much of the training-taking place at technical and vocational schools (<http://www.britannica.com./eb/article>).

In Japan, apprenticeship and employee training have often featured a personal orientation rarely found in other industrialized nations. This is the unique Japanese concept of apprenticeship between employer and employee. Although this arrangement does not hold for most small and medium-sized companies, large Japanese companies have had a social obligation to provide life long work for employee who are required to continue with the same employer (Until death or retirement) no matter what the job assignment. (<http://www.britannica.com./eb/article>).

On the other hand, most African countries are applying traditional apprenticeship training methodology, especially in the informal sectors, due to its cost effectiveness and its potential to train a large number of youth. Traditional apprenticeship helps graduates and school-leavers in Africa to join employment or self-employment (Ferej, 2000). The World Bank report (Carton and Kin, 2003) showed that traditional apprenticeship training is the most important form of structured training and source of technical and business skills for

informal sector workers in Africa. Accordingly, of all basic skill trainings, 90% comes from traditional apprenticeship in Ghana and 83.5% of artisans acquire their skills through traditional apprenticeships in Egypt. This study also reported that traditional apprenticeship training is well developed in West Africa than in Eastern and Southern Africa. Even though traditional apprenticeship method of acquiring skills on the job is the dominant mode of training in the informal sector, modern sectors have also large numbers of individuals who acquire their skills on-the-job without support from the formal educational system (Ferej, 2000). That is why the Nigerian National Open Apprenticeship System (NOAS) is using the traditional apprenticeship system as part of a national training program (Afenyadu, 1994).

According to Atchoarena and Delluc (2002), dual training model is an efficient means of familiarizing trainees with work conditions. They also added that lack of industrial fabric and inadequate supervision experience make dual training model difficult to apply in Africa. In addition, Singh (1998:33) criticized the application of dual apprenticeship training in developing countries as:

Private enterprises hardly train more apprentices than their own immediate need, let alone employ them after training. Furthermore, many enterprises, especially medium-sized and smaller ones, have difficulties, at least initially, to cope with the requirements related to workshop-based vocational training, not only for internal organizational and financial reasons, but also because of the inadequate number of pedagogical qualified skilled workers who could be assigned the task as instructors.

However, some African countries are still using such model due to the support and influence of their technical and financial partners. For instance, countries like Togo, Mali and Benin are applying dual apprenticeship training programs due to the support of Swiss and German Technical Cooperation (Atchoarena and Esquieu, 2002).

2.1.2 Traditional Apprenticeship

In using the term 'traditional' apprenticeship, it is pointing to the fact that there is a local variant of skill learning as opposed to the various Western versions of apprenticeship that were imported during the 1950s and 1960s (Afenyadu, 1994). He also added that in many

developing countries, with few exceptions, formal Western apprenticeship systems have remained extremely small as compared with the local, indigenous or traditional systems.

Ferej (2000) on his part explained that Traditional apprenticeship is a system where the apprentices lived with the family of the master and dependant upon the master for food, shelter as well as clothing to get training according to established specifications under the supervision of the master. In return, the apprentice should pay to his master for the training offered in terms of fee or service for some years. After training, apprentices have a right to seek employment elsewhere, start their own businesses or continue to work with their masters (Evans, 1971; Ferej, 2000). This on-job training was given continuously for occupations from simple to the most complex once even if there is no guarantee whether the apprentices learn every thing about the occupation or not .

The traditional apprenticeship method of acquiring skills on the job is worldwide common experience in the informal sectors though the extent to which the system is formalized are highly variable. In Egypt, for example, training through a guild system remained the norm until a hundred years ago and still influences training today. In several West African countries (e.g. Cote d'Ivoire, Ghana, Nigeria and Togo), traditional apprenticeship is highly formalized training system with elaborated contracts agreed between masters and the families of prospective trainees (McGrath and King, 1994).

In traditional apprenticeship, all learning takes place on-the-job on which the master watches over the apprentice closely and intervene at all crucial stages. The tasks performed and the skills learned are organized by the master or senior apprentices. Since apprentices are typically involved in work that has an economic dimension, working independently is not encouraged until the apprentices' performances are likely to be error free (Ferej, 2000). Traditional apprenticeship teaches not only technical skills but also how to behave and survive on the local labor market, which leads to employment or self-employment (GTZ - GATE, 1996). Even if the focus of traditional apprenticeship is to learn the practice of technical processes, trainees also learn business skills simply by being immersed in the business transactions of the enterprise.

Ferej (1997) clearly stated that the key characteristic of traditional skill training is its relative ease of entry and its high degree of self-financing; the fee structure is quite flexible, ranging from nothing in the case of compassion to a considerable amount. Taking on apprentices can be both a source of income from fee and a source of cheap labor for apprentices' masters. For example in Kenya, an apprentice in the informal sector can expect to pay approximately 60 US dollars (USD) per annum. The total fee paid for a normal course of training ranges from USD 120 - USD 360. It is usually paid in a single lump sum at the beginning of training. Apprentices receive an allowance or incentive of approximately one USD each working day and the amount gradually increases as the apprentice's skills develop. A reasonably competent apprentice can earn several times the amount of the fee paid (Ferej, 2000).

The amount to be paid in fee and the allowances provided by the master are agreed and costly graduation ceremony is enacted when the apprenticeship period is complete. However, in Chile, Latin American countries, as well as in East and Central Africa, training on the job is much less structured (McGrath and King, 1994).

Ferej (2000) characterized that Traditional apprenticeship begins with a period of orientation during which the new recruit is expected to learn the discipline of the workshop through carrying out boring tasks such as cleaning and running errands. They are then introduced to the tools and materials of the trade and are given increasingly complex tasks to carry out. In the later stages of their apprenticeship, they will be given responsibility for finishing pieces of work, dealing directly with customers and supervising junior apprentices. That means, learning and working are given approximately the same attention and completely integrated with each other. The master may even leave them in charge of the enterprise on occasions. The training thus obtained is more than a simple technical preparation. The managerial and business skills learnt during the apprenticeship period are central to the apprentices' future survival as entrepreneurs (Ferej, 2000; Carton and King, 2003). In West Africa, experiences have shown that a large number of young people are benefited from traditional apprenticeship training at reasonable cost.

According to Ferej (2000), the performance and the overall development of the apprentice were dependant on the work environment, the breadth and depth of the master's knowledge, the social interactions among the master, the apprentice, other apprentices and customers. In such a case, Parents having more than one child and orphans were more advantageous than others as apprentice learn different skills from more than one master. In general, the contextual factor will determine the quality of technical and enterprise skills of the apprentices as well as their entrepreneurial interests. This factor is even more critical in the training of apprentices in the informal sector, were the learners do not have another frame of reference. Each apprentice works and learns in an environment that is unique to the specific business. Eventually, the apprentice will take these experiences with them in starting their own business. For most apprentices, learning how to run a business is usually outside the immediate requirement of their training. The standard practice is to be involved in learning those tasks that are relevant to the technical processes. However, each apprentice, depending on his/her intensity of observation or interest, will learn other business activities by simply being immersed in the environment for prolonged periods. However, in some cases, trainees may have only hand tools to work with and seldom develop skills in the use of modern tools or in modern business methods.

The traditional apprenticeship-training period is not fixed, but is dependent on the master's satisfaction with the quality of the apprentice's work (Ferej, 1997). On average, in West Africa, the apprenticeship period is three to four years. Although there is much less detail on Eastern African systems, the apprenticeship period appears to be considerably shorter in that region. Even in West Africa, there is considerable variation according to the particular trade (Ferej, 2000)

2.1.2.1 Positive Aspects of Traditional Apprenticeship

Traditional apprenticeship training is work based, practical, self-regulated, self-financed and cost-effective. Such workplace experience develops important work-related knowledge and skills, improves the quality of learning by making it more applied and relevant, which have positive impacts upon the firms as learning organizations. With this regard, ILO (1979); McGrath and King (1994); Ferej (1997); Yamada (2001); Carton and King (2003) emphasized that traditional apprenticeship represents an effective and culturally appropriate

system both for operating a viable business and for training young workers in a trade at the same time. Since traditional apprenticeship is characterized by relative ease of entry, it is accessible to the more marginal community groups who lack the educational requirements for formal training and serves rural populations and the rural poor. Traditional apprenticeship is rich in opportunities to practice, acquire problem solving, creative thinking and teamwork skills that bring important skills to huge number of young people. Similarly, it provides apprentices to the well-established networks of their masters, which gives high opportunity to observe and participate in business activities and enable large number of youth to obtain skill training with little cost to both the learner and employer at no cost to the taxpayer.

2.1.2.2 Negative Aspects of Traditional Apprenticeship

Even though traditional apprenticeship is widely applied and very important for developing countries, Yamada (2001); Carton and King (2003) criticized that the coverage of the system is not universal in terms of countries or types of activity. It is usually concerned with artisan crafts rather than tertiary or service activities. The quality of the skills learned by the apprentice is very dependent upon the skills of the master. It is rare that apprentices have access to the latest techniques or tools appropriate to their tasks. The business skills learnt are also often elementary. Besides, traditionally trained workers are good at what they know but are often poor at adapting new technologies and situations. That means there is a tendency towards producing improvisers rather than artisans with sufficient theoretical knowledge to become innovators. Yamada (2001); Carton and King (2003) also added that Traditional apprenticeship training offers few opportunities for women, depends on traditional technologies, lack standard and quality assurances. It experiences significant levels of dropout though the rate tends to be lower in more traditional skill areas. This may be due to the greater survival of recruitment by kinship in these trades and to a sense of inter generational commitment to the trade within the kin or family group.

2.1.2.3 Suggestions to Improve Traditional Apprenticeship

To increase the quality of technical and enterprise skills of the apprentices as well as their entrepreneurial interests, traditional apprenticeship trainings have to be given upon the labor demands of the society. Fluitman and Haan (2003) suggested that good basic education facilitates traditional apprenticeship and enhances subsequent performance of trainees as an entrepreneur. Since learning in apprenticeship programs involves employers, employees, associations and apprentice, active involvements of these parties improve the implementation of this practice. Hence, improving the image of traditional apprenticeship, starting with market surveys and assisting the poor to finance apprenticeship, improving basic education and providing supplementary training for apprentices, and upgrading the skills of masters, evaluate and certify the skills obtained regularly are very important to improve traditional apprenticeship training programs (Fluitman and Haan 2003).

2.1.3. Modern Apprenticeship

Modern Apprenticeship is the system of skill and knowledge development where a long-term training is completed in industries and service rendering enterprises combined with compulsory classroom instruction under a joint agreement between training institutions, enterprises and apprentice (Rupesinghe and Rubio, 1994). In the past, apprenticeship was often viewed as a pedagogical questionable and biased towards employees' interest. Today however, many consider it an ideal vehicle for the work-based learning necessary for the school to work transition (Wanacott, 2000).

2.1.3.1 Modern Apprenticeship as Work-Study Program

Apprenticeship as a work-study program is a contextual teaching and learning approach in which work place activities are integrated with classroom context. It is originated from the grounds that learning should get real world context in a sense that it should not be only academic to many students but also increase their engagement in work situations. When students combine learning with real work life activities, they develop attitude, knowledge, skills, improve learning, critical thinking, teamwork skills and problem solving performance at work and school experience (Hughes and Moore, 1999).

In recent years, researchers and educators have been paying serious attention to work-based learning as a promising educational strategy and most developed countries make apprenticeship training as a significant part of their education system (Hughes and Moore, 1999). Compared to the mid-1980s, young people are now more likely to combine their studies with work during the transition. This is partly the result of participation in school-organized workplace experience programs. This means that for many young people the transition from being a student to being a full-time worker is now less sharp and sudden than it once was (Ferej, 2000).

In Work-based learning, trainees have to be placed with knowledgeable skilled adult who assume primarily responsibility to students and adopt the roll of mentor (Hughes and Moore, 1999). Chadd and Andrson (2005) have argued that meaningful work based learning experience requires the integration of academic and occupational content with the assistance of trained mentors. When work based learning are given without the assistance of trained mentors, trainees are likely to learn specifics of a job instead of gaining a broad understanding of work place activities. Thus, work site mentors must able to identify what needs to be taught in what order should it be taught and how to teach it. Hence, before apprentices are sent to the apprenticing organizations, providing work site mentor training is an essential element in effective apprenticeship training program. According to Hughes and Moore (1999), contemporary work based learning comprises an integrated curriculum of mental, technical, theoretical, applied, academic and vocational aspect. This integration provides increased presentation of knowledge, deeper understanding of the subject matter and the ability to apply knowledge and skills in flexible environment.

In particular, youth apprenticeships are seen as having potential to minimize youth floundering in the labor market, ensure educative work experience, increase earnings and educational attainment and make school more meaningful. Likewise, newer learning theories see apprenticeship as providing desirable opportunities for constructive learning with its scaffolding mentoring and communities of practices (Wanacott, 2000).

Apprenticeship direct ties to employment make it a natural element of the market driven and customer focused job-training system. Unions may perceive youth apprenticeship as a

treat to their influence or they may view it as a help in maintaining unions and wages. Employees' participation in youth apprenticeship is a focus of many states because it allows apprentice to exercise basic skills in realistically complex situations (Wanacott, 2000).

On the other hand, apprentice could not identify the connection between apprenticeship classes, related academic classes and their work experience. They simply viewed their experiences as an effective way to gain skill to become competitive in a rapidly changing and technological competent work place (Chadd and Anderson, 2005). Such confusion is the result of inappropriate guidance and evaluation during (after) apprenticeship. Effective apprenticeship training program requires a great deal of planning and involvement of each party. Both institutions and employers participate in supervising apprentices at the work place. Students must rely on the teacher coordinator who develop a classroom activity that will help them to develop work place skills. Work site mentors must reinforce previously taught skills and introduce additional ones required at the work place. Mentors also provide students with more supervision on the job that is more challenging and more meaningful. Students work involvement enhances to take responsibility as well as reading, writing, problem solving and other practice related to school. Trainees usually express more satisfaction with schools, and more positive attitude towards works but they do not necessarily have more occupational knowledge or effective competence. They also tend more often to claim that their jobs have positively affected their decision to stay in school. Work place provides a practical setting structured for work based experience and technical education is to teach young people how to perform in the work place.

The UNESCO - WHO (1999) report underlined that apprenticeship training and work experience placements can provide students with technical, entrepreneurial and vocational skills, which help to improve the economic futures of young people, combat poverty and joblessness and contribute to violence prevention efforts.

According to Chadd and Anderson (2005), Hughes and Moore (1999) modern apprenticeship as work based learning increases the acquisition of occupational, technical and readiness skills to apprentice, psycho-social development, preparation for adult

responsibilities, problem solving ability, creative thinking and teamwork skills. It enhances the academic learning through contextual or situational learning, which helps to develop motivations, enthusiasm on work, and career related job experience that may assist apprentice in further studies within their eventual entrance to the work force

Through modern apprenticeship, trainees insight about work conditions, nature of work, earnings in different occupation and employment. That means apprenticeship helps to know about associations, government agencies, unions and organizations that provide useful occupational information according to their interest, educational background and training experience.

However, Formal apprenticeship has been criticized by Atchoarena (2003) for its remoteness from market realities and its failure to provide the specific skills needed for self-employment. Enterprise-based training and traditional apprenticeship approaches are distinguished for imparting the skills needed for self-employment including the range of management and organizational skills needed in order to negotiate with suppliers and customers, cost products, train others, and absorb the customs and ethics of each profession (Atchoarena, 2003).

2.1.3.2 Difference between Traditional and Modern Apprenticeship

Even though both traditional and modern apprenticeships are work based training programs, there are regional and time variations between them. Some of the basic differences are:

- ▶ Traditional apprenticeship is worldwide experience in the informal sectors while modern apprenticeship mainly focused on formal sectors.
- ▶ Traditional apprenticeship is relatively easy of entry and high degree of self-financing. On the contrary, modern apprenticeship needs entry requirements and government (enterprise) financed.
- ▶ Quality and overall development of trainees in traditional apprenticeship are dependent on the masters' knowledge and work experience (lacks standard and quality assurance) but in modern apprenticeship, the quality of training and the knowledge of trainees are determined by the country standard.

- ▶ Traditional apprenticeship period is not fixed and dependent on the masters' satisfaction but the period in modern apprenticeship is predetermined by law.
- ▶ Traditional apprenticeship is widely used in under developed/ developing countries while modern apprenticeship is more applied in developed countries.
- ▶ Traditional apprenticeship is good at indigenous practices while modern apprenticeship is better in applying modern technologies.

2.2 Experiences of Selected Countries

Models and implementation of apprenticeship training are different depending on their skilled labor force demands and structure of TVET system. Experience of Germany is selected for this thesis because dual apprenticeship model is widely accepted in Germany and German speaking countries. Similarly, enterprise and trade training apprenticeship model in Australia is discussed to show the experiences of de-centralized structure of apprenticeship training in Australia while the experience of Ghana helps to see traditional apprenticeship methodology in developing countries. Hence, these three countries are chosen to show experiences of both developed and developing countries with respect to modern and traditional apprenticeship methodologies.

2.2.1 Apprenticeship in Germany

Overview

Germany is a country where firms are distinguished by a very high proportion of the workforce having intermediate level qualifications (Deissinger, 2004). Apprenticeship in Germany is mainly based on the dual system on which vocational training takes place in the apprenticing company as well as in a special vocational school. The system is designed to reflect the components of work, which apprentices are expected to do in their further professional lives. The fundamental design of the apprenticeship system is absolutely the same for all business sectors including the professions, parts of the civil service, crafts and the administrative sector (Beutner, 2000). The content of training, time structure of training and the successful completion of training are regulated by state governments, employers' associations and industrial chambers (Bougheas and Georgellis, 2001).

Theoretical lessons at vocational schools take place on one to two days a week within 12 lessons and practical training takes about 25 hours a week in the enterprise. After five hours a day, the apprentice is not permitted to work in the enterprise on that day and the enterprise has to free the apprentice for theoretical lessons (Beutner, 2000). According to Deissinger (2004), the normal duration of apprenticeship in Germany is about three years (with possibly shortening and extending) of which apprentice spent about two-thirds of their apprenticeship time in the companies and one third of their apprenticeship time in vocational school . The trainers in the enterprise, who teach the major practical part of the apprenticeship to be completed through the training centers, have also a responsibility to take care whether the apprentice obtains all knowledge, qualification and skills to reach the aims of the apprenticeship (Beutner, 2000).

Apprenticeship training with the dual system is open to everybody regardless of qualification age, nationality and gender. The age of an apprentice depends on the qualification level at schools usually between 15 and 21 years old. However, there are special non-formal requirements and special sorts. For example, to enter the banking sector, the apprentice should have passed at least the intermediate secondary school or the grammar school (Deissinger, 2004). According to this writer, apprenticeship in Germany is governed by a written contract between apprentice and the trainer in the enterprise. To this contract, the Vocational Training Act is the official German law, which regulates the form of the contract. The contract between these parties includes type, objective, structure and duration of the apprenticeship (includes daily work, vacations and the probationary period). In addition, the contract contains commencement and termination of apprenticeship, method of payment, level of the salary and apprenticeship outside the enterprise.

Apprentices in Germany have to attend two examinations that are given in the middle of apprenticeship period to control the level of the apprentice and the final examination given at the end of the apprenticeship to test apprentices' skill and knowledge (Deissinger, 2004).The content of the examination is determined by the vocational training rules. After completing the examination, the apprentice gets three certificates. The first one is the skilled worker's certificate (certificate of apprenticeship or commercial training certificate). The second certificate, issued by the training enterprise, describes the nature, duration and

objective of the vocational training as well as knowledge and skills. The third certificate, issued by the vocational school, can confirm qualifications that are necessary to go to a further training or education.

Apprentices in Germany do not carry the cost of the training. The basic costs of the training at vocational centers are financed from a mix of governmental taxes and taxes of the individual federal states but the running costs of apprenticeship at the enterprises are financed by the employer and the employee (Beutner, 2000). However, apprenticing enterprises have to pay a fair salary to apprentice on the bases of wage agreement of the sector that depends on the age of the apprentice and duration of the apprenticeship.

According to Deissinger (2004), since dual training is work based and mainly practical, the system is a well-understood and socially accepted pathway into employment. It is determined by the involvement of the state with regard to the nature and quality of occupational standards as well as to legal conditions underlying apprenticeship training. Public, private and semi-private institutions work together in a long-established mode of cooperation and those employers and unions normally take the initiative with respect to training regulations and their revision or modernization.

Lesson learned

From the German dual apprenticeship training, the following very important experiences are learned.

1. Trainees have to attend examinations to check whether they fulfilled the industry and the national standards.
2. State governments, employers' associations and industrial chambers have responsibilities to regulate the content, time structure and the successful completion of training to certify the examinations and the national standards.
3. Apprenticeship should be governed by a written contract agreement between apprentice and the enterprise.
4. Supervisors in the enterprises have high responsibilities to take care whether the apprentices obtain all knowledge, qualifications and skills to reach the aims of the apprenticeship.

5. Enterprises have to pay a fair salary to apprentice on the bases of wage agreement of the sector that depends on the age of the apprentice and duration of the apprenticeship.
6. Apprenticeship has to be well understood and socially accepted by the society as a pathway into employment.

2.2.2 Apprenticeship in Australia

Overview

Australia has been successful in substantially increasing participation in secondary schooling and tertiary education during the last half of the 20th century. This increased effort has included a significant improvement in the capacity of the Technical and Further Education (TAFE) sector to provide vocational education, particularly for trade training (Hager, 2004). Government support for vocational training has been strong when the Commonwealth agreed to support the development of TAFE and encourage apprenticeships in 1973. Initially, this support was largely on the grounds of economic efficiency and the output of the apprenticeship system to compensate for the decline in skilled immigration that had been a feature of the labor market since 1950 (Ray, 2001).

Hager (2004) expressed that Apprenticeship came to Australia with the establishment of the colony of New South Wales (NSW) in 1788. The colony adopted English law relating to masters and apprentices that became the basis of subsequent laws throughout Australia. The relationship between master and apprentice was effectively a contract of employment and training. It was subject to the law mainly because it involved the employment of children. Because of the relatively large number of migrants coming to the new colony, it could be assumed that most of the skill requirements of the period were met by the use of immigrant.

The first Australian apprenticeship legislation different from British law was established in 1894. A few years later, this Act was consolidated into the NSW apprentices Act 1901 that include a detailed framework for the regulation of apprentices, including many features that remain until now. By the end of the 19th century, apprenticeship was well organized throughout all states with full responsibility in regulating and administering (Hager, 2004; Rays, 2001).

According to Hager (2004), the apprenticeship system in Australia was largely based on the British model and survived with only minor changes for a long time. However, the global impact of major social and technological changes of recent decades has led to new reform of the Australian apprenticeship system. Accordingly, the trade-training model is applying through out all eight states and territories each controlled their own arrangements. The apprenticeship model of trade training that evolved in Australia has been emphasized on the importance of the contract of employment and training between the apprentice and the employer. Apprenticeship legislation has enabled state supervision over the contracts of employment and training, including processes for resolving disputes between employers and apprentices.

Throughout the last half century, apprenticeship maintained its attraction as a preferred way of training for major trade occupations such as vehicle mechanic, carpenter, joiner, engineering tradesperson and electrical mechanic (Ray, 2001). For all these occupations, apprenticeship provided a learning process that was balanced in the formal training and workplace experience to achieve relevant workplace competencies. For Apprentices in small firms, who are not provided sufficient practical training in the workplace, broad technical education as part of their formal training at TAFE is arranged (Ray, 2001; Hager, 2004). Over the last 40 years, the main role of apprenticeship has been to fill the stock of tradespersons. From 1985 until 1994, traineeships were promoted extensively as a way of encouraging early school leavers to enter the labor market and obtain some skill training (Ray, 2001).

The basic idea of traineeship was to provide entry level training for vocational occupations below technician (certificate or diploma) level that were not covered by apprenticeship (usually through a one-year traineeship involving formal training for one or two days each week). An important aim was to cater for newer kinds of work in emerging industries that were not covered by the traditional apprenticeship system. Traineeships were also intended to make training more available to various designated equity groups that were greatly under-represented in traditional apprenticeship.

Ray (2001) and Hager (2004) have expressed that the 'training' role of apprenticeship is more dominant than the 'employment' role (belonged solely to the industrial parties, rather than to governments) which includes Competency-Based Training specified by industrial participate in terms of standard. Apprenticeship has provided benefits to young people, employers (particularly small business) and the community. It has provided a major entry-level job for up to one-third of Australian male school leavers.

Apprenticeship involves a contract (should not exceed seven years and expire at the age of 21) of employment and training that is based on well-established industrial principles and procedures that preceded government subsidies. It had the provision that no apprentice was bound to serve his master for more than 48 hours per week (except for farmers or domestic servants). There is an established simple form of procedure for the settlement of differences and disputes between master and apprentice included summer remedies for breaches of contract such as absenting without leave (Hager, 2004).

Lesson learned

1. Apprenticeship has a potential to benefit the community through its role in providing a supply of skilled people, quality goods and services.
2. Apprenticeship as a system of employment and training is designed to benefit the industrial parties, apprentice and employers.
3. Apprentices benefited from having guaranteed paid employment for some years (nominally four years for trade apprenticeships) and an opportunity to learn skills from qualified tradespersons.
4. Employers are benefited from having an employee who becomes more and more productive as time passes. The relatively high costs of employing first-year apprentices can be acceptable to employers on the basis that, by the third and fourth years, apprentices attain a work value about the same as a tradesperson but receive apprentice wage that is less than the qualified rate.
5. Apprenticeship should be accepted by the community, enterprises and apprentices.

2.2.3 Apprenticeship in Ghana

Overview

Vocational and technical education in Ghana are designed to produce effective artisans, technicians and other middle-level personnel with the skills and knowledge required for the country's agricultural, industrial, commercial, social and economic development. It usually covers general education, practical training and related theory in varying concentrations (McGrath and King, 1994). Particularly, Vocational education is designed to prepare skilled personnel at lower levels of qualification for particular jobs, trades or occupations. Emphasis is given to equip the individual with entrepreneurial skills for self-employment that enables trainees to adapt easily changing economic and occupational situations. According to these writers, Technical education on the other hand, is designed to prepare technicians and middle-level management personnel to the immediate needs of the country. Especially, Vocational and Technical Education in Ghana provides learning and training opportunities in the informal sector that encourages female to participate in apprenticeship for jobs and occupations, which are traditionally not practiced by women. Special programs are also designed for physically handicapped and disabled persons (McGrath and King, 1994) which is the very important aspect of apprenticeship in Ghana.

Abban and Quarshie (1997), McGrath and King (1994) classified apprenticeship in Ghana as traditional apprenticeship, technical skills upgrading apprenticeship, management training for master mechanics apprenticeship and Master craftsmen apprenticeship. According to these writers, traditional apprenticeship in Ghana has also different phases depending on the type and duration of the occupation. In most apprenticeship programs, the first phase starts with an introduction such as doing menial jobs, cleaning the workshop and running errands. The next phase consists of getting to know all the tools of the trade as well as materials, spare parts, rules and regulations of the organizations. Finally, the apprentice is given complex tasks and increased responsibility in the absence of the master.

Apprentices in Ghana do not normally receive wages for the work they do. However, pocket money at the masters' maturity is the rule rather than the exception. Since apprentices are involved to productive and service activities, the frequency and the amount of their allowance tend to increase as they become more experienced and productive.

According to Singh (1998), apprenticeship period in Ghana depends on the master, on the apprentice, and to some extent on the activity. The working week of the apprentices is long normally six days of eight hours each. However, the total apprenticeship period varies from occupation to occupation. For example, in the wood working firms, the apprenticeship period ranges from 6 months to 2 years while in the metal working sector, it ranges from 2 - 5 years. On the other hand, apprenticeship programs organized and managed by Ghana National Association of Garage (GNAG) lasts four years until the apprentices qualify to go for further training at Kumasi Technical Institute (KTI). Apprenticeship in the KTI program takes twelve weeks for trainees and six weeks for master mechanics. The skills upgrading program is undertaken by KTI qualified staff using their modern equipment.

The master mechanics that complete the KTI program can then be selected for further training at the Management Development and Productivity Institute (MDPI). The apprenticeship takes four years and is usually subject to tripartite written contract. The apprentices are selected by their masters and given final approval by the GNAG secretariat. Those who completed the MDPI training are selected for Master artisans by Intermediate Technology Transfer Units (ITTU). These artisans may spend a period of practical on-the-job training at an ITTU as visiting apprentices for periods ranging from a few weeks to a few months to learn new skills. The ITTU organizes apprenticeship scheme not only for artisans but also for Students from Universities, Polytechnics, Vocational and Technical Institutes during vacation. Trainees who might have served periods of apprenticeship in an informal sector workshop may attain ITTU training to acquire particular skills that they missed either because the master himself lacked or because the necessary equipment was not available (McGrath and King 1994).

From the above discussion, apprenticeship in Ghana has comprehensive structure extending from minimal formal education to higher level of education in the universities. However, Biggs et al (1995) criticized that the apprenticeship system is less appropriate for skills needed to modern manufacturing where completely different types of skills are required at a higher level of education.

Singh (1998), Biggs et al (1995), Abban and Quarshie (1997) characterized that the inability to obtain an industrial plot, lack of start-up capital and lack of guidance before, during and after apprenticeship are the major problems in applying apprenticeship programs in Ghana .

Lesson learned

1. Apprenticeship has to be given not only for trainees but also for trainers (for periods ranging from a few weeks to a few months to learn new skills).
2. Traditional apprenticeship and formal apprenticeship should supplement each other to achieve maximum results.
3. Apprenticeship training programs should be integrated with other promotional institutions in a way that encourages specialization among organizations.
4. Apprenticeship should be given not only for lower level of training but also for higher levels of training at the universities.
5. Evaluation of apprenticeship should bring all parties together to increase productivity for participating enterprises and enhanced prospects for workers to be self-employed.

2.3 Apprenticeship in Ethiopia

2.3.1. Overview

Ethiopia, as one of the African countries, many of its work force comes from traditional apprenticeship. However, the condition of traditional apprenticeship in Ethiopia is not well organized and is not able to solve existing problems. Hence, the Ethiopia government decided to apply modern apprenticeship program. To have competent work force, trainees in vocational education and training institutions (colleges) have to adapt the real work life before they qualify themselves as self or wage employee in their specialized areas through apprenticeship in productive and service rendering enterprises. This may help trainees to develop desirable and effective work habit, acquire necessary knowledge and skill to an occupation and improve learning and problem solving performance at work.

Yekunoamlak (2000) expressed that apprenticeship programmers connect vocational schools/training centers with companies/service offering organizations so that trainees can attain the skill required in the actual work place. He also added that apprenticeship training in Ethiopia

appears to be an effective means of familiarizing trainees very early with the condition of the work environment who eventually qualify as self or wage employees in their special areas. It is the most cost effective mechanism for the government because organizations share cost of apprenticeship and use the same resources such as instructors, equipment, materials and time. Apprenticeship has also benefited the community through its role in providing a supply of trained people to provide quality goods and services. Apprenticeship training programs are also advantageous to organizations in the sense that they can evaluate and select competent apprentice to employ permanently after completing the training that helps them to save their time and money spent in selecting and hiring employees.

Placing students in apprenticeship program gives opportunity to integrate school and work based learning with real work environment. Apprentice can learn basic skills needed to become effective and productive workers in high skilled occupation. Masresha (2004) stressed that apprenticeship programs conducted in different organizations contribute to improve the quality of vocational graduates and satisfy the immediate skilled work force needs of the country. Hence, to achieve these objectives, the Ethiopian government set legal framework and guideline on which trainees undergo apprenticeship training in enterprises and service rendering organizations.

2.3.2 Objectives

Proclamation 391 /2004 and the curriculum developed by MoE in 2003 clearly indicated that applying apprenticeship program is mainly to familiarize trainees with work and work place activities so that they can relate theory into practice after on-the-job training. Apprenticeship program is also aimed to teach trainees work discipline and professional ethics that help them to develop self-confidence, problem-solving ability, update skills, knowledge and attitudes of the work and work related programs. Another objective of apprenticeship training as stated in the proclamation is to make enterprises and service organizations active participant in the Education and Training System of the country.

To achieve the above major objectives, Training Colleges/ Institutions have responsibilities to teach the community and concerned bodies about the importance and implementation of apprenticeship programs. Particularly, Training Colleges/institutions have high

responsibilities to give orientations to supervisors/mentors in the apprenticeship centers how to treat and evaluate apprentices at the workplace. On the other hand, Organizations selected for apprenticeship have to produce working materials and assign capable supervisors that follow the day-to-day activities of apprentice based on the guidelines. The trainees' checklists for performance achievement have to be submitted to the training colleges or institutes on time.

To achieve the utmost result of apprenticeship, trainees, Colleges/training centers and apprenticing organization do agree and sign a tripartite agreement to implement apprenticeship for mutual benefits (Proc. 391 /2004). Nevertheless, the study of Masresha (2004) and Abeya (2005) revealed that there was no tripartite agreement among trainees, apprenticing organizations and training colleges. As a result, problems caused by trainees make them discontinue the apprenticeship program.

The number of trainees sent to apprenticing organizations should depend on the capacity and appropriateness of human and material facilities in the organizations. However, assessment on apprenticeship done by Addis Ababa Education Bureau in 1997 E.C, studies of Masresha (2004) and Abeya (2005) showed that there was no clear criterion in selecting apprenticing organization and assigning trainees to apprenticeship centers. Companies/enterprises/, training institutions, government bodies and trainers were not following the apprenticeship guideline to undertake program successfully. According to these studies, since apprenticing organizations are not fully aware about apprenticeship training, they do not assign appropriate supervisor to apprentices and do not assign trainees on their field of study. Similarly, Training institutions do not follow whether trainees are attending the apprenticeship training upon the assigned organization regularly.

Since trainees do not get pre- apprenticeship orientation for the on-the-job training, they do not maintain work place discipline and ethics properly. Thus, attitudes of trainees, enterprise and the community are deflected to the contrary of the objective of apprenticeship programs. Even some enterprises consider trainees as problems to their organization. This was mainly due to the loose relation between training colleges (institutions) and apprenticing organizations.

CHAPTER THREE

PRESENTATION AND ANALYSIS OF DATA

This chapter deals with the analysis and interpretation of data gathered from the sample trainers, trainees, vocational counselors (apprenticeship coordinators), deans and supervisors (owners) in practice centers. Questionnaires, interviews and document analysis were the data collection tools used in this study. After the data were collected, they were checked for completeness and were classified, tabulated and analyzed to give appropriate treatment for the basic questions raised in chapter one.

Out of the 322 questionnaires distributed to trainees, 273 (84.78%) were filled and returned. From 108 questionnaires distributed to trainers, 84 (77.78%) were filled and returned. As the returned questionnaires were adequate for the purpose of this study, the numerical analysis therefore was based on these figures. Thus, interpretation and analysis of data obtained from the sample respondents are presented following each Table.

3.1 Background of Respondents

Table I: Characteristics of Apprentices Respondents

N0.	Colleges	Sex			Age in Years							
		M	F	Total	16	17	18	19	20	>20	Total	
1	TTC	N0.	73	24	97	-	-	14	25	28	30	97
		%	75.26	24.74	100	-	-	14.43	25.77	28.87	30.93	100
		N0.	41	46	87	-	1	25	14	11	36	87
2	HSC	%	47.13	52.87	100	-	1.15	28.74	16.09	12.64	41.38	100
		N0.	61	28	89	2	4	18	25	22	18	89
3	TVET	%	68.54	31.46	100	2.25	4.49	20.22	28.09	24.72	20.22	100
		Grand Total	N0.	175	98	273	2	5	57	64	61	84
		%	64.10	35.90	100	0.73	1.83	20.88	23.44	22.34	30.77	100

Regarding to sex distribution, 175 (64.10%) respondents in the sample were males and 98 (39.90%) were females. This figure was consistent with the data released by the respective colleges, where the enrollment rate of females was 31.88% in TTC, 48.57% in HSC and

CHAPTER THREE

PRESENTATION AND ANALYSIS OF DATA

This chapter deals with the analysis and interpretation of data gathered from the sample trainers, trainees, vocational counselors (apprenticeship coordinators), deans and supervisors (owners) in practice centers. Questionnaires, interviews and document analysis were the data collection tools used in this study. After the data were collected, they were checked for completeness and were classified, tabulated and analyzed to give appropriate treatment for the basic questions raised in chapter one.

Out of the 322 questionnaires distributed to trainees, 273 (84.78%) were filled and returned. From 108 questionnaires distributed to trainers, 84 (77.78%) were filled and returned. As the returned questionnaires were adequate for the purpose of this study, the numerical analysis therefore was based on these figures. Thus, interpretation and analysis of data obtained from the sample respondents are presented following each Table.

3.1 Background of Respondents

Table I: Characteristics of Apprentices Respondents

N0.	Colleges	Sex			Age in Years							
		M	F	Total	16	17	18	19	20	>20	Total	
1	TTC	N0.	73	24	97	-	-	14	25	28	30	97
		%	75.26	24.74	100	-	-	14.43	25.77	28.87	30.93	100
2	HSC	N0.	41	46	87	-	1	25	14	11	36	87
		%	47.13	52.87	100	-	1.15	28.74	16.09	12.64	41.38	100
3	TVET	N0.	61	28	89	2	4	18	25	22	18	89
		%	68.54	31.46	100	2.25	4.49	20.22	28.09	24.72	20.22	100
Grand Total		N0.	175	98	273	2	5	57	64	61	84	273
		%	64.10	35.90	100	0.73	1.83	20.88	23.44	22.34	30.77	100

Regarding to sex distribution, 175 (64.10%) respondents in the sample were males and 98 (39.90%) were females. This figure was consistent with the data released by the respective colleges, where the enrollment rate of females was 31.88% in TTC, 48.57% in HSC and

39.55% in TVET (see appendix 2). Hence, it is possible to say gender representation in the study was more or less proportional to the rate of enrollment and the data provided by the sample trainees reflect ideas and opinions of both male and female trainees.

It is revealed that female enrollment in Health Science College was greater than that of College of Teachers' Education, and Technical and Vocational Education and Training College.

When the age distribution of trainees is observed, only 7 (2.56%) respondents were below 18 years and 266 (97.44%) were 18 years and above. This showed that majority of trainees were capable physically and mentally to undertake practical training at the work place.

Table II: Characteristics of Trainers

N 0	Items		Respondents						Total		D f	Cal x ²	Tab x ²
			TTC		HSC		TVET		N0	%			
			N0	%	N0	%	N0	%					
1	Sex	Male	31	93.94	11	68.75	31	88.57	73	86.90	2	6.13	5.99
		Female	2	6.06	5	31.25	4	11.43	11	13.10			
		Total	33	100	16	100	35	100	84	100			
2	Educational Background	MA/M SC	7	21.21	-	-	-	-	7	0.803	4	41.21	9.49
		BA/B SC	26	78.79	11	68.75	11	31.43	48	57.14			
		Diploma	-	-	5	31.25	24	68.57	29	34.52			
		Total	33	100	16	100	35	100	84	100			
3	Service years	0 - 5	20	60.61	10	62.50	12	34.29	42	50.00	6	14.38	12.59
		6 - 10	1	3.03	4	25.00	3	8.57	8	9.52			
		11-15	2	6.06	-	-	4	11.43	6	7.14			
		>15	10	30.30	2	12.50	16	45.71	28	33.33			
		Total	33	100	16	100	35	100	84	100			

$\alpha=0.05$ significance level

The study revealed that female participation, as a trainer, was very low in both colleges (see Table II). Relatively more female trainers (31.25%) were available in HSC than TTC (6.06%) and TVET (11.43%). Accordingly, the critical value 6.13 is greater than the table value 5.99 indicated that for 2 degree of freedom at a 0.05 level of significance, gender distribution of trainers has statistically significant differences among the three colleges.

Regarding the qualification of respondents, 21.21% TTC teachers were 2nd degree and 78.79% were bachelor degree graduates. However, 11 (68.75%) of HSC and 11 (31.43%)

of TVET teachers were degree graduates. Although university degree was the minimum requirement to undertake activities directly pertaining to the training offered at the college level, 31.25% of HSC and 68.57% of TVET teachers were diploma graduates. This shows that staff compositions of TVET and HSC were under the minimum requirement set by the MoE, which will bring quality problems on the overall training system within the respective colleges. Comparatively, staff composition of TTC was better than the other two colleges. Hence, the chi-square value 41.21 is greater than the table value 9.49 indicating high significant difference in educational status of trainers for 4 degree of freedom at 95% confidence level. From the interview held with college vice deans of TVET, it was further discovered that most trainers are attending in-service training to upgrade their qualification.

Regarding service years of teachers, the majority, 20 (60.61%) of TTC ,10 (62.50%) of HSC and 12 (34.29%) of TVET teachers were below 6 years while 39.39% of TTC, 62.64% of TVET and 37.5% of HSC teachers have more than 5 years work experience(see Table II). Hence, from the service profile it can be said that TVET College comprised of more experienced teachers than the other two colleges and the majority of teachers' service experience lies below six years. A chi-square value 14.38 is greater than the table value 12.59 indicates the existence of work experience difference among the study groups for 6 degree of freedom at 95% confidence level. During the interview held with deans of the respective colleges, it was discovered that the employing structure in the colleges made experienced trainers not to apply in the colleges. That means, since colleges employ trainers with a salary of fresh graduate, experienced teachers are not voluntary to be employed with very small amount of payment in these colleges.

Therefore, this finding indicated that HSC and TVET College are operating the training below the required standards of qualification whereas TTC and HSC trainers work experience was very low compared to TVET service experience. TVET trainers are well experienced in spite of their qualification below the minimum standard set by MoE. Even if majority of trainers in TTC were first-degree graduates, 21.21% were second-degree graduates. During the interview held with dean of TTC, it was discovered that second-degree graduate trainers were very small because they displaced to Arba Minch University.

3.2 Selection, Arrangement and Placement of Trainees on Apprenticeship Centers

As it is already indicated in the literature of this thesis, before apprentices are assigned to practice, appropriate apprenticeship centers have to be selected. On basis of this, the majority of respondents, 80 (82.47%) of TTC, 71 (81.61%) of HSC and 82 (92.13%) of TVET trainees revealed the existence of criteria by which apprenticeship offering organizations were chosen. Similarly, 31 (93.94%) of TTC, 14 (87.50%) of HSC and 28 (80.00%) of TVET trainers confirmed the existence of criteria via which apprenticeship offering organizations were chosen. Both trainees and trainers of TTC and HSC respondents believed that availability of supervisors and occupations were widely used criterion to select apprenticeship centers in their colleges. TVET respondents asserted that interest of organizations was more dominantly considered to select apprenticeship centers. Availability of supervisors and occupations was chosen as a second criterion to select apprenticeship centers in TVET. However, in actual case, availability of supervisors and occupations are the most important factors in the selection of apprenticeship centers. With this respect, TVET College has given less attention to select apprenticeship centers. A chi-square test indicated that for 8 degree of freedom at 0.05 confidence level, the Table value 5.99 was greater than the calculated value .973 implying that there was no statistically significant difference in perception among the three trainees group in selection criteria of apprenticeship centers.

Table III: Criteria for Selection of Apprenticing Organizations

NO	Items	TRAINEES									TRAINERS									D F	Tab x ²		
		TTC		HSC		TVET		Total		Cal x ²	TTC		HSC		TVET		Total		Cal x ²				
		NO	%	NO	%	NO	%	NO	%		NO	%	NO	%	NO	%	NO	%					
1	Are their criteria for selection of apprenticeship centers																						
	Yes	80	82.47	71	81.61	82	92.13	233	85.35		31	93.94	14	87.50	28	80.00	73	86.90					
	NO.	17	17.53	16	18.39	7	7.87	40	14.65		2	6.06	2	12.50	7	20.00	11	13.10					
	Total	97	100	87	100	89	100	273	100	.973	33	100	16	100	35	100	84	100	2.80	2	5.99		
2*	If you say yes for number 1, what are the criteria																						
	Number of employees in the organization	28	20.74	21	20.79	14	11.38	63	17.31		7	12.96	12	31.59	5	13.51	24	16.11					
	Interest of organizations	40	29.63	25	24.75	63	51.22	128	35.16		11	20.37	8	21.05	27	47.37	46	30.87					
	Availability of supervisors and occupations	53	39.26	47	46.53	25	20.33	125	34.34		19	35.19	14	36.84	25	43.86	58	38.93					
	Type of ownership (government or NGO)	4	10.37	4	3.96	16	13.01	34	9.34		13	20.07	4	10.53	-	-	17	11.41					
	Others	-	-	4	3.96	5	4.07	9	2.47		4	7.41	-	-	-	-	4	2.68					
	Total	135	100	101	100	128	100	364	100	39.56	54	100	38	100	57	100	149	100	39.77	8	15.51		
3*	Criteria used to assign trainees to the practices centers																						
	Field of study	88	63.77	31	32.29	80	63.49	199	55.28		21	52.50	16	34.78	24	44.44	61	43.57					
	Distance from resident	4	2.9	25	26.04	-	-	29	8.06		2	5.00	8	17.39	11	20.37	21	15.00					
	Apprentice interest	9	6.52	14	14.58	12	9.52	35	9.72		4	10.00	6	13.04	14	25.93	24	17.14					
	On lottery basis	37	26.81	22	22.92	31	24.6	90	25.00		11	27.50	4	8.70	5	9.26	20	14.29					
	Others	-	-	4	4.17	3	2.38	7	1.94		2	5.00	12	26.09	-	--	14	10.00					
	Total	138	100	96	100	126	100	360	100	75.22	40	100	46	100	54	100	140	100	36.25	8	15.51		

* Multiple Responses
 $\alpha=0.05$ significance level

Once apprenticeship centers were chosen, the remaining task was to distribute trainees in the respective centers. A study of Masresha (2004) in Oromia Region showed that the mechanism used in distributing trainees to apprenticeship centers was not formal and clear to apprentice. Here trainees were asked to indicate the mechanisms used to distribute apprentice to apprenticeship centers. Accordingly, 88 (63.77%) in TTC, 32 (32.29%) in HSC and 80 (63.49%) in TVET trainee respondents believed that field of study was the major criteria used to dispatch trainees to the respective practice centers. HSC used distance from resident as a second major criterion in assigning trainees to the selected organizations. Apprentice interest was considered with minimal percent in all the three colleges as a mechanism to dispatch apprentice to the training centers. The calculated value 39.56 is greater than the table value 15.51 indicating statistically significant difference among trainees for 8 degree of freedom at 0.05 levels of significance.

Regarding the mechanisms used to send apprentice to apprenticeship centers, 21 (52.50%) in TTC, 16 (34.78%) in HSC and 24 (44.44%) in TVET respondents believed that field of study was the major criteria used to dispatch trainees to the respective practice centers. As indicated in the Table, the calculated value 75.22 is much greater than the table value 15.51. Thus, there was statistically significant difference among trainees for 8 degree of freedom at 0.05 level of confidence. Similarly, the chi-square value 36.25 of trainers is greater than the table value 15.51 indicating the existence of differences among trainers for 8 degree of freedom at the 95% confidence level. Hence, this finding indicated that the three colleges set criteria to select apprenticeship centers and assign trainees to the practice centers.

Table IV: Assigning Trainees to Practices Centers

NO	Items	TRAINEES									TRAINERS									D F	Tab x ²	
		TTC		HSC		TVET		Total		Cal x ²	TTC		HSC		TVET		Total		Cal x2			
		NO	%	NO	%	NO	%	NO	%		NO	%	NO	%	NO	%	NO	%				
1*	Who is authorized to assign trainees to apprenticeship centers?																					
	Vocational counselor	17	11.33	17	14.78	76	71.03	110	29.57		-	-	-	-	35	64.81	35	27.34				
	Trainers	48	32.00	42	36.52	10	9.35	100	26.88		14	29.17	8	30.77	1	1.85	23	17.97				
	Organizations request	14	9.33	11	9.57	5	4.67	30	8.06		5	10.42	4	15.38	18	33.33	27	21.09				
	Trainees personal contact	1	0.67	7	6.09	9	8.41	17	4.57		5	10.42	-	-	-	-	5	3.91				
	Colleges management	70	46.67	38	33.04	7	6.54	115	30.91		24	50.00	14	53.85	-	-	38	29.69				
	Total	150	100	115	100	107	100	372	100	133.60	48	100	26	100	54	100	128	100	102.17	8	15.51	
2*	Who determine the number of trainees sent to the selected organizations																					
	Each organization	4	3.23	15	14.56	15	13.27	34	10.00		1	2.32	-	-	18	38.3	19	16.67				
	Training institutions	54	43.55	28	27.18	45	39.82	127	37.35		24	55.81	10	41.67	2	4.26	36	31.59				
	Advisory committee	12	9.68	5	4.85	2	1.77	19	5.59		1	2.32	--	-	-	-	1	0.88				
	Agreement between colleges and organizations	53	42.74	54	52.43	50	44.25	157	46.18		-	-	-	-	2	4.26	2	1.75				
	No formal procedure	1	0.81	1	.97	1	.88	3	0.88		17	39.53	14	58.33	25	53.19	56	49.12				
	Total	124	100	103	100	113	100	340	100	21.40	43	100	24	100	47	100	114	100	47.24	8	15.51	

* Multiple Responses

$\alpha=0.05$ confidence level

Trainees were asked to indicate an authority in charge of assigning them to the selected organizations. For that, 48 (32.00%) of TTC and 42 (36.52%) HSC trainees believed that trainers were authorized to assign trainees to practice centers. Trainers' involvement in assigning trainees to practice was higher in TTC and less in TVET College. On the other hand, 76 (71.03%) of TVET respondents replied that the vocational counselor was authorized to assign trainees to apprenticeship centers. The involvement of college management was very high in TTC (46.67%) and very low in TVET (6.54%) compared to HSC (33.04%).

On the other hand, 24 (50.00%) of TTC and 14 (53.85%) HSC trainers believed that college management was authorized to assign trainees to practice centers while 34 (64.81%) of TVET respondents replied that the vocational counselor was authorized for assigning trainees to apprenticeship centers.

One of the problems of conducting apprenticeship training in African countries is lack of industrial fabric and trained supervisors (Gasskov, 2000). Particularly, in Ethiopia, the number of trainees assigned to an organization was not proportional to the availability of human and material facilities (Masresha, 2004). He added that lack of coordination between training institution and apprenticeship centers was the main reason that hinders the implementation of apprenticeship training. With this regard, 53 (70.67%) of TTC, 54 (52.43%) of HSC and 50 (44.25%) of TVET trainees stated that the number of trainees sent to an apprenticeship center was determined by agreement between colleges and apprenticeship centers. On the contrary, 28 (27.18%) of HSC and 45 (39.82%) of TVET trainees specified that the number of trainees assigned at a particular center was determined by training colleges only.

An interview was held with some selected heads of apprenticeship offering organizations how the number of trainees sent to their organization match with the facilities in their organization. Accordingly, heads of the schools selected for practice centers confirmed that the number of trainees sent to practice was proportional to the school facilities up on the agreement made between the two parties. However, trainees sent to Health Centers

(Hospitals) were not proportional to the available human and material facilities. Even in one of the practice centers (Merab Abaya Health Center), as the head of the Health Center described, the number of trainees sent was twice the number of employees. Head Department Clinical Nurse and apprenticeship coordinator of Arba Minch Health Science College agree with the unbalance distribution of apprentice to the apprenticeship centers. The reason behind this fact as he described was the availability of dormitories inside the Health Center that forced them to send more apprentice there. Such mismatch enforced the Health Center to assign trainees during the night shift, which has its own limitations. Health Science trainees were attending the practical training in well organized government Hospitals and Health Centers only. However, they are expected to go to the rural Health Extension Centers, privately owned clinics and pharmacies after completion the course. With this regard, trainees may lack confidence and experience to work in rural clinics, Extension Health Centers, privately owned clinics and pharmacies.

On the other hand, the number of TVET trainees assigned to an organization differs from occupation to occupation. Since majority of trainees came from rural areas and neighboring zones, some of them went back for practice to their districts based on the availabilities of occupations and hence there was no saturation in almost all apprenticeship centers except in some field such as Auto Mechanics, General Mechanics and Information and Communication Technology. The number of trainees in Auto Mechanics, General Mechanics and Information and Communication Technology was not proportional to human and material facilities of apprenticeship centers because apprenticing organizations in these fields are concentrated in Arba Minch. A chi-square was calculated to detect the perceptual difference on determination of size of trainees. Accordingly, for 8 degree of freedom at 0.05 levels of significance, the calculated value 21.40 was greater than the Table value 15.51 implying that there was statistically significant difference among the three study groups.

Similarly, 24 (55.81%) TTC of trainers asserted that the number of trainees sent to an apprenticeship centers were determined by training institutions whereas 14 (58.33%) of HSC and 25 (53.19%) of TVET trainers claimed that there was no formal procedure used to

determine the number of trainees assigned to the apprenticeship centers. A chi-square was calculated to detect the perceptual difference on determination of number of trainees. Accordingly, for 8 degree of freedom at 0.05 level of confidence, the calculated value 47.24 was greater than the Table value 15.51 implying that there was statistically significant difference among trainers how the number of trainees assigned to the apprenticeship centers was determined.

On the other hand, disagreement was observed between trainers and trainees regarding the determination of trainees' assignment to practices centers (see Table IV). This variation may be due to lack of transparency of management system in the colleges. Hence, this finding indicated that the criterion that determines the number of trainees assigned at a particular practice centers were not clearly understood by both trainees and trainers.

Table V: Adequacy and Appropriateness of Apprenticeship Period

N O	Items	TRAINEES									TRAINERS									D F	Tab x ²	
		TTC		HSC		TVET		Total		Cal x ²	TTC		HSC		TVET		Total		Cal x ²			
		N0	%	N0	%	N0	%	N0	%		N0	%	N0	%	N0	%	N0	%				
1*	Assignment of apprenticeship training periods																					
	During summer vacation	-	-	56	56.57	79	85.87	135	45.92		-	-	16	55.17	35	100	51	50.50				
	Shifting system	21	20.39	13	13.13	2	2.17	36	12.24		11	29.73	6	20.69	-	-	17	16.83				
	For specified period	79	76.70	21	21.21	11	11.99	11	37.76		26	70.27	3	10.34	-	-	29	28.71				
	Others	3	2.91	9	9.09	-	-	12	4.08		-	-	4	13.79	-	-	4	3.96				
	Total	103	100	99	100	92	100	294	100		37	100	29	100	35	100.00	101	100				
2*	Convenient of assigned period																					
	Yes	42	43.3	55	63.22	55	61.8	152	55.68		31	93.94	-	-	28	80.00	59	70.24				
	N0.	55	56.7	32	36.78	34	38.2	121	44.32		2	6.06	16	100	7	20.00	25	29.76				
	Total	97	100	87	100	89	100	273	100	8.69	33	100	16	100	35	100	84	100	48.23	2	5.99	
3*	Preferred apprenticeship period																					
	At the beginning of each academic year	20	34.48	6	14.63	5	12.50	31	22.30		-	-	4	16.00	3	42.88	7	20.59				
	during semester break	23	22.41	6	14.63	5	12.50	23	16.55		-	-	5	20.00	-	-	5	14.71				
	At the end of each academic year	15	25.86	24	58.54	22	55.00	61	43.88		-	-	2	8.00	-	-	2	5.88				
	At the end of the program	10	17.24	5	12.20	8	19.51	23	16.55		2	100	14	56.00	4	57.14	20	58.82				
	Total	58	100	41	100	40	100	139	1000		2	100	25	100	7	100	34	100				

*multiple Response

α=0.05 significant level

To make apprenticeship more effective, it is recommended that appropriate apprenticeship period for both parties has to be determined first. With this regard, 56 (56.57%) of HSC and 79 (85.87%) of TVET trainee respondents replied that their apprenticeship period was during summer vacation. On the other hand, 79 (76.70%) of TTC trainees practice period was for a fixed period within the semester. Few respondents in both colleges were attended their apprenticeship training on shifting system. Majority, 55 (63.22%) of HSC and 55 (61.80%) of TVET trainees persuaded that the practice period was convenient while 55 (56.70%) of TTC, 32 (36.78%) of HSC and 34 (38.20%) of TVET trainees were not much comfortable with practices period they attended. Chi-square was calculated to detect whether the apprenticeship period was convenient or not among the respondents. As a result, the calculated value 8.69 was greater than the Table value 5.99 implying that there was statistically significant difference for 2 degree of freedom at 95% confidence level.

Respondents who were not happy with the apprentice period were asked to indicate convenient period. Accordingly, 20 (34.48%) of TTC, 6 (14.63%) of HSC and five (12.50%) of TVET respondents favored the practice period to be at the beginning of each academic year. On the other hand, 23 (39.65%) of TTC, 6 (14.63%) HSC and five (12.50%) of TVET trainers preferred the apprentice period to be during semester break. Majority of HSC and TVET (58.54% and 55.00% respectively) preferred the apprenticeship period to be at the end of each academic year. Few respondents also asserted the apprenticeship period to be at the end of the program. This great variation on apprenticeship period comes from the fact that majority of trainees in the three colleges were from rural districts and neighboring Zones, they may need summer vacation to help their families and their families may need the assistance of their children during summer. This family and economic relation may force apprenticeship during summer vacation not convenient for some trainees in TVET and HSC. On the other hand, some TTC trainees were not comfortable with their practice period because they had semester final examination immediately after practice. Hence, this finding indicated that the apprenticeship period needs systematic arrangement based on the local conditions to have its utmost result in the three colleges under the study.

Duration of apprenticeship differs from occupation to occupation and from country to country. In Ghana for instance, it lasts from 6 months to years depending on the type of firms (Biggs et al., 1995) while term of apprenticeship contract in Australia should not exceed seven years and expire at age 21 years (Hager, 2004; Ray 2001). The majority, 85 (87.63%) of TTC trainees attended practical training for two weeks at a time in each semester except the final semester of the program(in which TTC trainees are supposed to attend one-month training). About 83 (95.46%) of HSC and 86 (96.63%) of TVET trainees attended apprenticeship training for two months in each year.

Trainee respondents were asked to rate the adequacy of apprenticeship period .Accordingly, 46 (47.42%) of TTC and 31 (34.83%) of TVET confirmed that the period allotted for practice was not enough. Nevertheless, 51 (52.58%) of TTC, 79 (90.80%) of HSC and 58 (65.17%) of TVET respondents asserted that the period allotted for practice was adequate (see Table VI). A chi-square test was calculated to detect the significant difference among trainees of the study group. Accordingly, the calculated value 33.42 was greater than the Table value 9.49 implying the existence of statistically significant difference for 4 degree of freedom at the 95% of confidence level.

Similarly, 21 (63.64%) of TTC and 22 (62.86%) of TVET trainers confirmed that the period allotted for practice was sufficient while 9 (56.25%) of HSC trainers believed that the practice period was not enough to acquire the necessary skills. The Table value 9.49 is less than the critical vale 19.72 indicating that the adequacy of training period had statistically significant difference for 4 degree of freedom at 0.05 levels of significance. The adequacy of apprenticeship period had differences between trainers and trainees in HSC. In contrast TTC and TVET trainees' responses agree with trainers' response concerning on the adequacy of apprenticeship training period.

However, interviews held with supervisors in apprenticing centers (Health Center/Hospital, Garages, Home and office furniture Production Centers, Schools etc) indicated that the time allotted for practice was not enough to acquire the expected occupational skill. A mechanic in one of the garage said, "two month training was not sufficient to familiarize names and types of machines let alone to give occupational skills". Head of Merab Abaya

Health Center agreed with the inadequacy of apprenticeship period. According to the Head of the Health Center, for instance, ‘midwifery may not see a single newly born infant within two month’. Hence, duration of apprenticeship period has different perceptions among trainees, trainers in all the three institution and supervisors in apprenticeship offering organizations.

Table VII: Condition for Trainees’ Transportation and Distance Apprenticeship Centers

NO	Items	Respondents(Trainees)						Total	
		TTC		HSC		TVET		NO.	%
		N0.	%	N0.	%	N0.	%		
1	Distance of apprenticing organization from trainees resident								
	0 – 5 km	49	50.52	15	17.24	52	58.43	116	42.49
	6 – 10 km	10	10.31	3	3.44	23	25.84	36	13.19
	11 – 15 km	1	1.03	6	6.90	5	5.62	12	4.40
	16 – 20 km	9	9.28	7	8.0	1	1.12	17	6.23
	Beyond 20 km	28	28.86	56	100	8	8.99	92	33.70
	Total	97	100	87	100	89	100	273	100
2*	Means of transport to the apprenticeship center								
	On foot	41	42.27	42	39.63	66	67.38	149	59.47
	Organization service	---	----	9	8.49	8	8.16	17	5.65
	Public transport	---	---	14	13.21	24	24.49	38	12.62
	College service	56	57.73	41	38.68	---	---	97	32.23
	Total	97	100	106	100	98	100	301	100

* Multiple Responses

$\alpha = 0.05$ significant level

Trainees were asked to indicate the distance from their resident to the apprenticeship centers they were assigned. Accordingly, 49 (50.52%) of TTC, 15 (16.85%) of HSC and 52 (58.43%) of TVET were assigned below 6 km. Trainees whose resident situated beyond 6 km away from practice centers were 49.48% in TTC, 83.15% in HSC and 41.57% in TVET. They were also asked how they traveled from their resident to the apprenticeship centers. Accordingly, 42.27% TTC, 39.63% HSC and 67.38% of TVET used their own foot while 57.73% of TTC and 38.68% HSC trainees used college service. During the time of data collection, the researcher observed that TTC trainees were transported from the center Arba Minch to practice centers (up to 56 km) by College bus daily. On the other hand, the majority of TVET trainees were traveled from their home to the apprenticeship centers either on foot or by public transport.

Table VIII: Incentives to Apprentice

N0	Items	Respondents(Trainees)						Total	
		TTC		HSC		TVET		N0.	%
		N0.	%	N0.	%	N0.	%		
1	Provisions of incentives to apprentice from organizations								
	Yes	36	37.11	61	70.11	30	33.71	127	46.52
	N0.	61	62.89	26	29.89	59	66.29	146	53.48
	Total	97	100	87	100	89	100	273	100
2*	If you say yes, the form of incentive given to apprentice								
	Pocket money	---	----	39	50.65	13	33.33	52	32.10
	meal	13	28.26	4	5.19	7	17.95	24	14.81
	Transport	-	32.61	21	27.27	7	17.95	43	26.54
	Refreshment	31	67.39	8	10.39	11	28.21	50	30.86
	others	2	4.35	5	6.49	1	2.56	8	4.94
		46	100	77	100	39	100	162	100

* Multiple Responses
 $\alpha = 0.05$ significant level

Incentive to apprentices was one of the issues posed to respondents. Accordingly, 61 (70.11%) trainees from HSC confirmed that apprenticeship-offering organizations gave some amount of incentives during the training. However, the majority, 61 (62.89%) of TTC and 59 (66.29) TVET trainees asserted that there was no incentive given to them during the practice. The incentive given was in the form of refreshment for TTC trainees and pocket money for HSC and TVET trainees. Trainees in HSC were given incentives in the form of pocket money as they participate in malaria prevention and polio- myelitis eradication campaign while TVET trainees participate in production and service activities.

Thus, the finding indicated that the financial requirement of apprenticeship training is not only directly associated with the training in the college but also extra personal expense such as food, transport and shelter.

Table IX: Trainers Response on Legal Foundation of Apprenticeship

N0	Items	Respondents (Teachers)								D f	Cal x ²	Tab x ²
		TTC		HSC		TVET		Total				
		N0	%	N0.	%	N0.	%	N0.	%			
1	Existence of contract agreement with apprenticeship offering organization											
	Yes	9	27.27	3	18.75	11	31.43	23	27.38			
	No	24	72.73	13	81.25	24	68.57	61	72.62			
	Total	33	100	16	100	35	100	84	100	2	0.89	5.99
2	Availability of the laws supporting the implementation of apprenticeship											
	Yes	23	69.70	16	100	20	57.14	59	70.24			
	No	10	30.30	-	-	15	42.88	25	29.76			
	Total	33	100	16	100	35	100	84	100	2	37.67	5.99
3*	If you say 'yes', which of the following are used in your college											
	TVET proclamation	3	12.50	8	30.77	12	44.44	23	29.87			
	labor proclamation	-	-	3	11.54	2	7.41	5	6.49			
	Apprenticeship guideline	18	75.00	13	50.00	13	48.15	44	57.14			
	Others	3	12.50	2	7.69	-	-	5	6.49			
	Total	24	100	26	100	27	100	77	100			

α=0.05 confidence level

*Multiple selections possible

Apprenticeship training links trainees with companies and service rendering organizations. In doing so, it provides many opportunities for trainees to improve their practical skills and adapt work environment and social interaction. Thus, this vital aspect needs to be supplemented by law. As indicated in the literature of this thesis, from the experience of countries like Germany, Australia and Ghana, it can be learned that legal foundation of training is essential to the utmost effect of apprenticeship training. A study of Masresha (2004) and Abeya (2005) confirmed that apprenticeship contract with the concerned bodies was very limited.

The less applicability of apprenticeship contract was supported by trainer respondents. Only 27.27% of TTC, 18.78% of HSC and 31.43% of TVET trainers confirmed the existence of a tripartite agreement. Among the respondents, 18 (75.00%) TTC, 13 (48.5%) TVET and 13 (50.00) of HSC trainers believed that apprenticeship guideline was a law supporting the implementation of apprenticeship training in their respective colleges. On

the other hand, 3 (12.5%) of TTC, 6 (30.77%) of HSC and 12 (44.44%) of TVET trainers believed that TVET proclamation is a law binding the implementation of apprenticeship training in their colleges. Few respondents also assumed that labor proclamation is a binding law for apprenticeship training. However, labor proclamation and apprenticeship guideline are not the binding laws of apprenticeship training. With this respect, TVET College was some how familiar with TVET proclamation better than the other two colleges.

Similarly, the majority of the total trainee respondents, 225 (82.42%) replied that there was no contract agreement signed showing the implementation of apprenticeship training based on legal framework was very low. Even a misconception among those who replied positively was observed. This was manifested on their responses to elements of contract that all of them replied, name, sex, age and address were elements of the contract. However, during observation in some practice centers, these elements were written for attendance and evaluation purpose only. The very important elements of apprenticeship contract include condition for payment, condition for termination, type of occupation and duration of apprenticeship. Since apprenticeship training is designed for fixed time range (at least 312 hours), existence of apprenticeship period was very important. With this respect, only 23.3% of TVET trainees were signed contract with apprenticeship centers that indicate duration of apprenticeship period. In actual case, contract of apprenticeship shall be conducted among training institution, an organization and a trainee (Proc. No. 391/2004).

Thus, based on the majority respondents, it is possible to say that rules and regulations of apprenticeship training programs were not clearly understood and applied by participating organs in the area.

3.3 Implementation of Apprenticeship Training

One of the main objectives of apprenticeship training is to make trainees familiar with the occupations that match to trainee's field of study. In view of that, trainees were asked whether apprenticeship centers assigned them based on their field of study or not.

Table X: Placement of Trainees and Orientation

N o	Items	TRAINEES									TRAINERS									D F	Tab x ²	
		TTC		HSC		TVET		Total		Cal x ²	TTC		HSC		TVET		Total		Cal x ²			
		NO	%	NO	%	NO	%	NO	%		NO	%	NO	%	NO	%	NO	%				
1	Were trainees assigned apprenticeship based on field of study																					
	Yes	50	51.55	73	83.91	69	77.53	192	70.3		30	90.91	16	100	28	80.0	74	88.10				
	No	47	48.45	14	16.09	20	22.47	81	29.7		3	9.09	-	-	7	20.0	10	11.90				
	Total	97	100	87	100	89	100	273	100	27.22	33	100	16	100	35	100	84	100	5.59	2	5.99	
2*	If not, what are the possible reasons																					
	lack of field of study	25	37.31	7	28.00	10	27.78	42	32.8		1	20	-	-	1	7.69	2	11.11				
	shortage of supervisors	14	20.90	13	52.00	5	13.89	32	25.0		2	40	-	-	3	23.1	5	27.78				
	misunderstanding about apprenticeship training																					
		8	11.94	2	8.00	7	19.44	17	13.3		2	40	-	-	7	53.8	9	50.00				
	Less coordination between college and organizations																					
		20	29.85	3	12.00	14	38.89	37	28.9		-	-	-	-	2	15.4	2	11.11				
	Total	67	100	25	100	36	100	128	100		5	100	-	-	13	100	18	100				
3	Did trainees get orientation before practice?																					
	Yes	90	92.78	87	100	87	97.75	264	96.7		29	87.89	12	75.00	18	51.43	59	70.24				
	No	7	7.22	-	-	2	2.45	9	3.30		4	12.12	4	25.00	17	48.57	25	29.76				
	Total	97	100	87	100	89	100	273	100	7.98	33	100	16	100	35	100	84	100	20.38	2	5.99	
4*	If you say 'yes' for 3 what are the elements of orientation?																					
	Rules and regulations	71	54.62	80	39.02	81	50.63	232	46.8		21	29.17	12	20.69	6	16.22	39	23.35				
	How to use materials	41	31.54	54	26.34	49	30.63	144	29.1		19	26.39	12	20.69	7	18.92	38	22.75				
	customers handling	7	5.38	29	14.15	10	6.25	46	9.3		21	29.17	14	24.14	14	37.84	49	29.34				
	How to keep secret	5	3.85	20	9.76	10	6.25	35	7.1		8	11.11	14	24.14	8	21.62	30	17.96				
	Others	6	4.62	22	10.73	10	6.25	36	7.7		3	4.17	6	10.34	2	5.41	11	6.59				
	Total	130	100	205	100	160	100	495	100		72	100	58	100	37	100	167	100	9.13	8	15.51	

* Multiple Responses

α=0.05 significant level

Majorities in all the three colleges confirmed that they were assigned for practices based on their field of study. Only 47 (48.45%) of TTC, 14 (16.09%) of HSC and 20 (22.47%) of TVET trainees respond negatively. Those who replied negatively were asked to indicate the possible reason for which they were assigned other than the field of study. Consequently, 25 (37.31%) and 20 (29.85%) of TTC respondents asserted that absence of fields of study and less coordination between colleges and organizations were first and second causes respectively.

Here TTC respondents may be confused because of the stream difference they are attending and the subject classification in the practice centers. It is to mean that the subjects like biology, chemistry and physics were not given separately during the training. Instead, natural science, social science language and mathematics were given as training streams. Absence of fields of study and less coordination between colleges and organizations were also selected second and first reasons for TVET trainees to be assigned other than field of study respectively. Condition for HSC is rather different from TTC and TVET. In HSC, lack of supervisor was the main reason for trainees to assign other than field of study. Misunderstanding about apprenticeship training program was also another reason with small proportion in the three colleges.

Hence, the finding indicated that majority of trainees were assigned on their field of study to attend apprenticeship training in all of the three colleges. However, for some trainees, absence of field of study, lack of supervisors in the field of study and less coordination between colleges and apprenticeship centers were the main reasons in assigning apprentice other than their field of study for TTC, HSC and TVET trainees respectively. A chi-square value 27.22 is greater than the Table value 5.99 implying assignment of trainees based on their field of study had statistically significant difference between trainees in the three colleges for 2 degree of freedom at the 95% confidence level.

Trainers were asked about placement of apprentice at the work place. Consequently, 30 (90.91%) of TTC, 16 (100%) of HSC and 28 (80.00%) of TVET teachers replied that apprentice were assigned based on their field of study. Conversely, 0.09% of TTC trainers

and 20.00% of TVET trainers refused. According to these respondents, misunderstanding about apprenticeship training was the main reason to assign trainees other than their field of study. Similarly, lack of supervisors in the field of study and less coordination between colleges and organizations were some of the reasons asserted by TVET trainer. For 2 degree of freedom at the 0.05 significance level, calculated value 5.59 is nearly equal to the Table value 5.99 implying that assignment of trainees based on their field of study had no statistically significant difference among trainers.

Orientation is one of the most important functions in implementing apprenticeship training, which enables to bring about connection between organizational goals/expectations and apprentice needs. It helps trainees to integrate themselves with the organization and its environment. Orientation also assists trainees to acquaint themselves with important consideration of personal, professional and community relationships with the organization. To ascertain whether colleges and apprenticeship organizations had such a kind of program, a question was posed to trainees. Accordingly, almost all (more than 92%) of trainees in all the three colleges were given orientation. As far as the focus /topics of orientation was concerned, considerable portion of the respondents disclosed that the orientation program mostly focused on rules and regulation (54.62% in TTC, 39.02% in HSC and 50.63% in TVET) and how to use materials were the first two focus areas of the orientation.

Table XI: Follow Up of Apprenticeship Practice

N 0	Items	Respondents(Trainees)						Total		D f	Cal x ²	Tab x ²
		TTC		HSC		TVET		No	%			
		No.	%	No.	%	No.	%					
1	Supervisors assigned to help apprentice											
	Yes	95	97.94	77	88.51	83	93.26	255	93.41			
	No	2	2.06	10	11.49	6	6.74	18	6.59			
	Total	97	100	87	100	89	100	273	100	2	6.63	5.99
2	If you say yes for 1, to extent supervisors assist trainees at the work place											
	Highly	16	16.84	21	27.27	21	25.3	58	22.75			
	Sufficiently	47	49.47	23	29.87	20	24.10	90	35.29			
	Moderately	22	23.16	17	22.08	18	21.69	57	22.35			
	Low	10	10.53	11	14.29	21	25.3	42	16.47			
	Very low	----	----	5	6.49	3	3.61	8	3.14			
	Total	95	100	77	100	83	100	255	1000	8	21.71	15.51
3 *	Basis for supervisors to evaluate trainees											
	based on guideline	55	45.45	59	46.83	34	36.17	148	43.40			
	based on personal relation	26	21.49	28	22.22	20	21.28	74	21.70			
	based on their own criteria	38	31.40	35	27.78	29	30.85	102	29.91			
	do not evaluate	2	1.65	4	31.75	11	11.70	17	4.98			
	Total	121	100	126	100	94	100	341	100			
4 *	Training college follow apprentice practices at the work place											
	Yes	83	85.57	71	81.61	69	77.53	223	81.68			
	No	14	14.43	16	18.39	20	22.49	50	18.32			
	Total	97	100	87	100	89	100	273	1000	2	1.99	5.99
5 *	If yes ,the extent of follow up by training colleges											
	Daily	26	27.37	28	44.44	14	20.00	58	25.44			
	Once a week	26	27.37	8	12.7	6	8.57	40	17.54			
	Once in two weeks	40	42.11	7	11.11	6	8.57	53	23.25			
	Once in a month	3	3.16	13	20.63	44	62.86	60	26.32			
	others	---	----	7	11.11	---	--	7	3.07			
	Total	95	100	63	100	70	100	228	100	8	118.32	15.51
6 *	Reasons for the absence of follow up by training colleges											
	Shortage of man power	3	13.64	6	20.00	12	25.00	21	21.00			
	Management's negligence	10	45.45	12	40.00	25	52.08	47	47.00			
	shortage of finance for per diem	6	27.27	11	36.67	3	6.25	20	20.00			
	Responsibility already handled by apprenticeship centers	---	---	1	3.33	4	8.33	5	5.00			
	Others	----		---		4	8.33	4	4.00			
	Total	22	100	30	100	48	100	100	100	8	17.78	15.51

$\alpha=0.05$ significance level

* Multiple Response

Organizations selected for apprenticeship training have duties and responsibilities to assign capable supervisors who would enhance the knowledge and skills of the apprentice. These supervisors should follow up and evaluate the day-to-day performance of the apprentice (Article 21: Proc. 391/2004) and finally sent to the colleges. These supervisors assigned by organizations should be knowledgeable and skilled individuals primarily responsible to students and adopt the roll of mentor (Hughes and Moore, 1999). Based on this, trainees were asked how supervisors assist them during the apprenticeship period. Accordingly, 95 (97.94%) of TTC, 77 (88.51%) of HSC and 83 (93.26% TVET trainee respondents indicated that organization assigned supervisors to help apprentice during the training. A small portion of respondents replied that supervisors were not assigned during the training period. A chi-square test was calculated to check the significance difference among the three study groups. As the result indicated, the calculated value 6.63 was greater than the Table value 5.99 implying that there was statistically significant difference for 2 degree of freedom at 0.05 levels of significance.

Respondents were also asked to rate the performance of supervisors during the apprenticeship period. Hence, 85 (89.47%) of TTC, 61 (79.22%) of HSC and 59 (71.08%) of TVET respondents indicated that supervisors assisted them at the required level. Whereas 10 (10.53%) of TTC, 16 (20.78%) of HSC and 24 (28.51%) of TVET respondents argued that supervisors were not responsible to supervise the apprentice during the training period. Here a chi – square test was used to see the rating differences among the three study groups for 8 degree of freedom at 0.05 confidence level. Consequently, the calculated value 21.71 was greater than the Table value 15.51 indicating that there was statistically significant difference in rating the performance of supervisors at the work place.

In addition to assisting trainees, supervisors have responsibilities to give evaluation for apprentice based on the apprenticeship guideline. However, only 45.45% of TTC, 46.83% of HSC and 36.17% of TVET trainees believed that the evaluation was done based on the apprenticeship guideline. More than half of the respondents replied that supervisors evaluate trainees based on personal relation or their own criteria. HSC and TVET trainers

also support trainees' response (see appendix -1). Hence, this finding indicated that evaluation of trainees was not done based on the apprenticeship guideline.

Training Colleges/ Institutions have also duties and responsibilities to assign a coordinator who shall follow up and control apprenticeship training undergone by trainees. Eighty three (85.57%) of TTC, 71 (81.61%) HSC and 69 (77.53) of TVET trainees responded that training colleges assign coordinators to follow and control apprenticeship practices. Whereas 14 (14.43%) of TTC, 16 (18.39%) of HSC and 20 (22.49%) of TVET trainees responded negatively. For 2 degree of freedom at 0.05 significance levels, the calculated value 1.99 was less than the Table value 5.99 indicating that there was no statistically significant difference among the study groups.

Trainees were also asked to indicate the follow up frequencies made by coordinators. Accordingly, 40 (42.11%) of HSC respondents asserted that coordinators follow apprenticeship practices daily. The condition in TVET was reasonably different from the rest two. The majority, 44 (62.86) of TVET trainees were supervised by apprenticeship coordinator once in a month. This was supported by vocational counselor of TVET College during the interview held with the writer of this thesis. The vocational counselor asserted that follow up practice was done once in a month due to shortage of manpower. He also added, "The College was not able to follow and control apprentice practices frequently because majority of the staff members were attending in-service training during summer". Even for those who were assigned in apprenticeship centers very far from the College, follow up practices were done by telephone. However, similar percent of trainees, 25 (52.08%) of TVET, 10 (45.45%) of TTC and 12 (40.10%) of HSC asserted that training colleges did not follow and control apprentice practices frequently due to management negligence. With this regard, for 8 degree of freedom at 0.05 level of confidence the Table value 15.51 is less than the calculated value 17.78 indicating that reasons not to undertake follow up had statistically significant difference among the study group.

Trainees assigned in apprenticeship training are expected to integrate the theory though in the classroom with the actual practice at the work place. With this regard, trainees were asked to rate the relationship between theory and practice during apprenticeship.

Consequently, both groups of the study confirmed that experiences gained were highly related with the theory taught in the classroom. Almost equal proportion of respondents asserted that theory and practice was related moderately. Among these, 20 (20.62%) from TTC, 23 (26.44%) from HSC and 12 (13.48%) from TVET responded that there was a very high relationship between practice and theory. Yet, 20 (20.62%) of TTC, 15 (17.24%) of HSC and 20 (22.47%) of TVET trainees confirmed that theory and practice were related below average.

Trainees at the work place were expected not only to engage in practically activities but they were also expected to gain social, professional and occupation skills. With this regard, the majority of trainees in both colleges confirmed that they had the necessary skills (see Table XII). More than half of the respondents asserted that they acquired enough occupational skills during apprenticeship period. On the contrary, small proportion of respondents (6.19% of TTC, 24.14% of HSC and 13.43% of TVET) believed that they had no adequate occupational skill. Among these, 41.18% of TTC and 40% of TVET trainees assumed that they were not assisted properly during apprenticeship but HSC respondents asserted that mismatch between working and training materials was the main reason that forced them not to gain the necessary occupational skills.

3.4 Problems and Suggested Solutions

Table XIII: Factors Affecting Retention and Complete of Apprenticeship Training

No	Items	Respondents(Trainees)						Total		D f	Cal x ²	Tab x ²
		TTC		HSC		TVET						
		NO	%	NO.	%	NO.	%	NO.	%			
1	Some trainees forced not to attend the apprenticeship training											
	Yes	44	45.36	52	59.77	48	53.93	144	52.75			
	No	53	56.70	35	40.23	41	46.07	129	47.25			
	Total	97	100	87	100	89	100	273	100	2	3.98	5.99
2*	If you say 'yes' to number 1 which of the following be possible reasons											
	Absence of apprenticeship centers	29	60.42	13	24.07	27	42.19	69	41.57			
	Inconvenient of apprenticeship period	8	16.67	14	25.93	13	20.31	35	21.08			
	Being non-regular trainees	4	8.33	5	9.26	3	4.69	12	7.23			
	large number of trainees compare to apprenticeship centers	7	14.58	20	37.04	19	29.69	46	27.71			
	others	-	-	2	3.70	2	3.13	4	2.41			
	Total	48	100	54	100	64	100	166	100			
3*	Mechanism set for those who do not attend the apprenticeship training due to different reasons											
	forced to withdraw	24	19.67	65	57.52	21	20.39	110	32.54			
	Another apprenticeship period was arranged	55	45.08	21	18.58	41	39.81	117	34.62			
	compensation was given	26	21.31	22	19.47	27	26.21	75	22.19			
	nothing was done	17	13.93	5	4.42	14	13.59	36	10.65			
	Total	122	100	113	100	103	100	338	100			

$\alpha=0.05$ confidence level

*Multiple responses

Forty-four (45.36%) of TTC, 52 (59.77%) of HSC and 48 (53.53%) of TVET trainees responded that some trainees were forced not to attend apprenticeship training. However, 53 (56.7%) of TTC, 35 (40.23%) of HSC, and 41 (46.07%) of TVET trainee asserted that there was no reason that hinder trainees to attend apprenticeship training. A chi-square indicated that for 2 degree of freedom at 0.05 level of confidence the critical value 3.98 is less than the Table value 5.99 implying that there was no statistically significant difference among the three study groups. Among the reasons, 29 (60.42%) of TTC and 27 (42.19%) of

TVET trainers confirmed that absence of apprenticeship centers was the main reason why trainees were forced not to attend the training. On the other hand, HSC trainees responded that large number of trainees compared to apprenticeship centers was the major reason.

Trainees were asked to indicate the measures that have been taken for those who were excluded from apprenticeship training beyond their control. Accordingly, 55 (45.08%) of TTC and 41 (39.81%) of TVET trainees replied that another apprenticeship period was arranged while 65 (57.52%) of HSC trainees asserted that trainees were forced to withdraw from the training. Similar proportion of respondents confirmed that theoretical compensation was given for those trainees excluded from apprenticeship training beyond their control.

Table XIV: College Related Problems on Apprenticeship

No	Items	TRAINEES								TRAINERS							
		TTC		HSC		TVET		Total		TTC		HSC		TVET		Total	
		N0	%	N0	%	N0	%	N0	%	N0	%	N0	%	N0	%	N0	%
1	Colleges' training problems influence on apprenticeship training																
	Yes	90	92.78	84	96.55	73	82.02	247	90.48	28	84.85	16	100	31	88.57	75	89.29
	No	7	7.22	3	3.45	16	17.98	26	9.52	5	15.15	-	-	4	11.43	9	10.71
	Total	97	100	87	100	89	100	273	100	33	100	16	100	35	100	84	100
2*	Colleges related factors influencing apprenticeship training																
	shortage of training materials	75	44.91	52	34.67	53	34.42	180	38.22	12	22.64	12	26.09	29	43.28	53	37.06
	outdated training materials	15	8.98	18	12.00	18	11.69	51	10.83	4	7.55	4	9.70	6	8.96	14	9.79
	Colleges poor management	33	19.76	28	18.67	15	9.74	76	16.14	6	11.32	8	17.39	15	22.39	41	28.67
	Trainers below the required educational reasons standard	44	26.35	33	22.00	61	39.61	138	29.30	18	33.96	6	13.04	10	14.93	23	16.09
	shortage of manpower	-	-	18	12.00	7	4.55	25	5.31	7	13.21	16	34.78	7	10.45	29	20.28
	others	-	-	1	0.67	-	-	1	0.21	6	-	-	-	-	-	6	4.20
	Total	167	100	150	100	154	100	471	100	53	100	46	100	67	100	143	100

$\alpha=0.05$ significant level

*multiple selection

Employers and service delivering organizations complain that graduates of colleges are not theoretical and psychologically competent for the actual work situations. Some of the reasons frequently raised are trainees' low academic performance and the evaluation systems used to certify trainees. Others complain that the colleges' human and material facilities are below the requirements set by MoE. Here trainees and trainers were asked whether colleges related factors influence apprenticeship training or not. Surprisingly, about 90% of both trainees and trainers in all of the three colleges confirmed positively. Among these, 49.91% of TTC and 34.67% of HSC trainees asserted that shortage of training materials highly influence apprenticeship training while 39.61% of TVET trainees confirmed that trainers below the required standard was the main factor that affected apprenticeship training. Trainers below the required educational standard was the second major factor that affects apprenticeship training for TTC and HSC trainees while shortage of training materials was the second factor that affects TVET trainees during apprenticeship.

Similarly, 43.28% of TVET trainers believed that shortage of training materials was the major factor that directly influences on apprenticeship training whereas 33.96% of TTC trainers asserted that trainers' low academic performance was mainly affects practical training at the actual work place. On the other hand, 34.78% of HSC trainers confirmed that shortage of manpower highly affected practice at the work place. However, student teacher ratio for HSC is about 21:1, which is average compared to 41:1 in TTC and 18:1 in TVET (see appendix- 2). Similar proportions of trainers and trainees in all the three colleges stated that colleges' poor management system had certain impacts on apprenticeship trainings.

Hence, this finding indicated that apprenticeship problems are not limited to the apprenticing centers rather factors related to Colleges such as shortage of training materials, low academic performance of trainers and Colleges poor management system also have effects on apprenticeship training at the work place.

Table XV: Suggestions to Solve Apprenticeship Problems

N O	Items	TRAINEES								TRAINERS							
		TTC		HSC		TVET		Total		TTC		HSC		TVET		Total	
		N0	%	N0	%	N0	%	N0	%	N0	%	N0	%	N0	%	N0	%
1*	Means thought to solve financial problems on apprenticeship training																
	apprentice should cover the cost	6	4.76	13	10.00	5	3.70	24	6.14	3	6.67	1	2.78	2	2.70	6	3.87
	establish fund raising committee	24	19.09	27	20.77	35	25.93	86	21.99	29	64.44	15	41.67	31	41.89	75	48.39
	the government should allocate apprenticeship budget	90	71.43	73	56.15	88	65.19	251	64.19	3	6.67	6	16.67	18	24.32	27	17.42
	Apprenticing organizations should pay for apprentice	6	4.76	17	13.08	7	5.19	30	7.67	8	18.18	12	33.33	15	20.27	35	22.58
	exempt organizations from tax	-	-	-	-	-	-	-	-	2	4.44	2	5.56	8	10.81	12	7.74
	Total	126	100	130	100	135	100	391	100	45	100	36	100	74	100	155	100
2*	Overall suggestions to solve apprenticeship problems																
	Establish advisory committee	54	24.88	37	21.02	17	10.56	108	19.49	27	30.68	10	22.73	6	7.59	43	20.38
	Give financial support to trainees	28	12.90	29	16.48	37	22.98	94	16.98	9	10.23	6	13.64	20	25.32	35	16.59
	Arrange seminars and workshops	59	27.19	49	27.84	46	28.58	154	27.80	26	29.55	6	13.64	21	26.58	53	25.12
	Revise TVET proclamation	19	8.76	29	16.48	10	6.21	58	10.47	18	20.45	16	36.36	24	30.38	58	27.49
	Establishes apprenticeship committee containing trainers trainees and supervisors in organizations																
		57	26.27	32	18.18	51	31.68	140	25.27	8	9.09	8	18.18	8	10.13	24	11.37
	Total	217	100	176	100	161	100	554	100	88	100	44	100	79	100	211	100

*: Multiple Response

To seek opinions on respondents how to resolve some of the problems of apprenticeship training programs, questions were posed to trainees. As a result, the majority, 90 (71.43%) in TTC, 73 (56.15%) of HSC and 88 (65.19%) of TVET respondents confirmed that it is the governments responsibility to allocate apprenticeship budget. Establish apprenticeship fund raising committee was the second major solution forwarded by trainees to solve apprenticeship financial problem. Trainees stressed that arrange seminars and workshop to concerned bodies are mandatory to tackle the over all problems of apprenticeship problems. The existence of apprenticeship coordinating committee containing apprentice, trainers and supervisors in the organization has given great attention as a solution to apprenticeship problems.

The very important thing in the apprenticeship training is a good relation between training institutions and apprenticeship offering organizations. With this regard, no positive measure was done to increase the relationship between training institution/colleges with apprenticing organizations (Abeya, 2005). During the interview held with schools selected for practices, it was indicated that College of Teacher's Education gave seminars and workshop to mentors before trainees sent to Practices. The College also had donated typewriters and duplication machine to schools selected for practice centers. As a result schools were very much cooperative to the utmost result of teaching practice. On the other hand, HSC and TVET colleges had not been given any seminar or workshops to apprenticeship offering organizations. The respective colleges agree with supervisors response and defended that it was due to shortage manpower. Hence, this finding indicated that TTC has made a good effort to make their relation effective. The efforts made by HSC and TVET to make organizations active participant in apprenticeship training were very low compared to Teachers Training College.

Table XVI: Respondents Opinions on Apprenticeship Program

No	Items	Respondents	Colleges						Between Groups		Within the group		F Calculate d	Tab value of F
			TTC		H SC		TVET		Sbg ²	Df	Swg ²	Df		
			μ	SD	μ	SD	μ	SD						
1	Apprenticeship helps to be self-employed	Trainees	3.29	.328	4.23	.449	3.98	.408	21.32	2	3.720	81	5.738	2.996
		Trainers	3.73	.620	3.75	.895	4.14	.689	1.704	2	6.819	270	0.255	
2	Organizations do not see apprenticeship as part of training	Trainees	2.59	.334	2.78	.343	3.21	.339	9.42	2	1.780	81	5.295	2.996
		Trainers	2.52	.581	3.31	.809	3.60	.581	10.365	2	12.507	270	.8287	
3	Apprentice adapt new technologies at the work place	Trainees	2.57	.336	3.95	.408	3.70	.374	51.66	2	4.124	81	12.53	2.996
		Trainers	3.30	.563	3.69	.880	3.69	.595	1.471	2	8.496	270	.1331	
4	Apprenticeship increases work habits and self-confidence	Trainees	4.48	.465	4.61	.514	4.49	.487	0.427	2	.782	81	0.546	2.996
		Trainers	4.39	.772	4.44	1.13	4.31	.729	.1002	2	3.280	270	.0305	
5	Trainers and supervisors believed on apprenticeship	Trainees	3.97	.263	4.34	.437	3.89	.378	5.25	2	.960	81	5.487	2.996
		Trainers	4.09	.695	3.88	.931	3.89	.632	0.436	2	6.501	270	.0671	
6	Apprenticeship evaluations are Given based on performance	Trainees	3.29	.328	3.75	.384	3.70	.328	5.917	2	3.015	81	1.963	2.996
		Trainers	3.55	.591	3.69	.879	2.54	.562	11.34	2	31.305	270	.3617	
7	organizations benefited from apprenticeship training	Trainees	3.69	.358	4.16	.439	4.08	.422	3.99	2	2.410	81	1.657	2.996
		Trainers	3.76	.694	3.81	.911	4.29	.724	2.674	2	6.970	270	.3836	

α=0.05 confidence level
SD: standard deviations

μ: mean
Df: degree of freedom

Swg²: standard deviations within the group
Sbg²: standard deviations between group

Apprenticeship training was mainly designed to make apprentice employed or self-employed. With this regard, trainees were asked to rate how apprenticeship training helped trainees to be self-employed. Respondents in HSC had scored significantly higher than both TTC and TVET trainees. Similarly, teacher respondents from HSC had considerably rated higher than that of TTC and TVET colleges. However, both trainees and trainers in all the three colleges sense that apprenticeship helps to be self-employed above the average. The F ratio was calculated to determine the significance difference at 0.05 level of confidence and the Table value 2.996 is less than the ratio value 5.738 indicating the existence of statistically significant difference among trainee respondents. On the other hand, since the Table value 2.996 is greater than the ratio value 0.255 there was no statistically significant difference observed among trainers at 95% level of confidence. It can be seen that both trainees and trainers from HSC rate higher than that of TTC and TVET trainees as well as trainers. From TTC and TVET respondents, both trainees and trainers in TVET rated higher than TTC trainees and trainers.

Respondents were requested to rate interest of organization towards apprenticeship. The result of analysis of variance suggested that there was significant difference between the mean score of trainee respondents. Accordingly, students from TVET believed that apprenticing organizations do not see apprenticeship as part of training whereas students from TTC and HSC rate that organizations do not see apprenticeship as part of training nearly average (see Table XVI). Trainers from HSC also confirmed that organization do not see apprenticeship as part of training. Trainers from TTC and TVET rated equally how organizations see apprenticeship training. The F ratio 5.295 of trainees is greater than the table value 2.996 and the F ratio .8287 of trainers is less than the table value 2.996. Hence, trainee respondents from all the three colleges confirmed that apprenticeship offering organization do not see apprenticeship as part of training with out significance difference while trainers confirmed that apprenticeship offering organization do not see apprenticeship as part of training with statistically significance difference at the 95% confidence level. In any case, it can be seen that there were misconceptions perceived by apprenticeship offering organizations on apprenticeship.

Among the important facts that trainees were assigned to take training at the actual work place was to familiarize them with new technologies and working conditions. Accordingly, trainees were asked to rate how apprenticeship training helped trainees to become accustomed with new work conditions and technologies. As a result, trainees from HSC confirmed that apprenticeship helped trainees to adapt new technologies at the work place better than TTC and TVET respondents. On the other hand, TVET trainees ranked better than TTC respondents did. The F ratio 12.53 is greater than the table value 2.996 indicated that there was a significant difference among trainee respondents at the 0.05 significance level. Trainers from HSC asserted that apprenticeship training helped apprentice to adapt new technologies better than TTC and TVET trainers. From the analysis of variance, the F ratio .1331 is less than the table value 2.996 indicating that there was no statistically significant difference between the mean scores of trainers with respect to apprenticeship ability in adapting new technologies at the work place. The above findings indicated that though there was no perceptual difference among trainers, HSC trainees had better understanding about the importance of practical training at the work place to adapt new technologies and TTC trainees had the least perception.

Furthermore, an attempt was made to investigate whether apprenticeship increases work habit and self-confidence. With this regard, trainees from all colleges rated above the average proportionally. However, HSC trainees understand that apprenticeship increases work habit and self-confidence better than TTC and TVET trainees do. The F ratio 0.546 is less than the table value 2.996 implying that there was no statistically significant difference among the means at 0.05 level of confidence. Similarly, Trainers from all colleges agree with the issue without any significant difference. Relatively, TTC and TVET trainers rated less than HSC trainers did. Table value 2.996 is greater than calculated value 0.0305 implying that there was no statistically significant difference among the means at 0.05 levels of significance. Here the finding indicated that both trainees and trainers from all colleges confirmed that apprenticeship increase work habits and self-confidence to apprentice.

Respondents were asked to rate trainers and supervisors perception on apprenticeship training. Accordingly, HSC trainees and trainers rated highly compared to TTC and TVET trainees and trainers. Trainees F- ratio 5.487 is greater than the table value 2.996 indicating the existence of statistically significant difference among the mean of trainees at 0.05 levels of significance. However, trainers F- ratio 0.0671 is less than the table value 2.996 indicating that supervisors and trainers believed on apprenticeship training without any significant difference at the 95% confidence level.

In connection with apprenticeship evaluation system done by apprenticeship offering organizations, TTC and TVET trainees believed that evaluation are given based of performance while HSC trainees rate better than the others do. From the analysis of variance, the F-ratio value 1.963 is less than the Table value 2.996 and hence there was no significant difference among the mean scores of trainees at 0.05 levels of significance. On the other hand, trainers from TVET and TTC rate nearly equal but HSC trainers rated the issue better than the others did. Trainers F-ratio value 0.3617 is less than the table value 2.996 indicating that apprenticeship offering organizations evaluate trainees based on performance without any significant difference at 0.05 level of confidence.

Regarding the importance of apprenticeship for training centers, trainee respondents replied that organizations benefited from apprenticeship training by rating above the average in all the three colleges. For the purpose of comparison, HSC trainees and trainers rate higher than the other two colleges. The F ratio 1.657 is less than the table value 2.996 indicated that the mean scores(see able XVI) of trainees had statistically significant difference at 95% level of confidence were as analysis of variance on mean scores of trainers indicated that trainers perception had no significant difference among the study groups at 95% confidence level. Hence, this finding indicated that apprenticeship-offering organizations were benefited from apprenticeship training. This idea was supported by owner of Beauty Salon and wood production centre during the interview held with this author. According to owners of these organizations, apprenticeship helped them to select competent young employees to their organization and now they are working with former apprentice.

CHAPTER FOUR

Summary, Conclusion and Recommendations

4.1 Summary of the Findings

The purpose of this study was to see the implementation of apprenticeship training in three government Colleges at Arba Minch. To this end, questions addressing on the implementation of apprenticeship training such as selection of apprenticing organization, placement of apprentice, linkage between theory and practices, problems and measures addressing the problems were raised.

The study employed descriptive analysis and conducted in regular programs of the three government colleges. The subject of the study were 3 deans(v/deans), 3 apprenticeship coordinators/vocational counselors, 84 trainers, 273 trainees and 15 apprenticeship centers. Accordingly, the respondents sampling was carried through stratified random sampling, purposive sampling and available sampling techniques. Trainees were selected through stratified random sampling technique and trainers were selected through both purposive and random sampling techniques. All the other respondents were selected through available sampling technique.

Questionnaires, interviews and document analysis were used to obtain information from respondents. The data obtained were analyzed using percentages and analysis of variance (ANOVA) such as chi-square test and F-test. Thus, the following major findings were obtained from the result of data analysis.

- 4.1.1 Fifty-eight percent of TTC and 54.02% of HSC trainees were above 19 years old whereas only 44.94% of TVET trainees were beyond 19 years. Therefore, the age profile showed that, students from TTC and HSC were relatively elder than students from TVET. The participation of female trainees in TTC and TVET was few compared to HSC. Similarly, female

trainers were very low in all the three colleges. However, the number of female trainers in HSC was greater than the other two colleges.

- 4.1.2 Regarding work experience and qualification of trainer respondents, TTC trainers have better qualification than HSC and TVET. Even though ETP clearly stated that trainers in College level should have at least a minimum of first degree, 31.25% of HSC and 69.57% of TVET trainees had college diploma, which is below the minimum requirement standard by MoE.
- 4.1.3 For the majority of respondents (both trainees and trainers) in TTC and HSC, availability of supervisors and occupation were widely used criterion to select apprenticing organizations. Interest of apprenticing organizations was a dominant factor in selecting apprenticeship centers for TVET trainees.
- 4.1.4 According to the majority of respondents, placement of apprentice to practice centers was done by agreement between colleges and apprenticing organizations. However, the number of trainees sent to apprenticeship centers was determined by college's management in TTC, trainers in HSC and vocational counselor in TVET College.
- 4.1.5 Based on the finding, TTC trainees sent to apprenticing organizations were more or less proportional to human and material facilities of organizations while HSC trainees were not proportional to human and material facilities of health apprenticeship centers. It was also indicated that TVET trainees in some field of studies (apprenticing organizations concentrated in Arba Minch only) were not proportional with human and material facilities.
- 4.1.6 Both TVET and HSC trainees indicate that they were attending their practice during summer vacation. Due to schools academic calendar, TTC

trainees conduct their practice during the third month of each semester. Majority of the HSC and HSC trainees confirmed that apprenticeship during summer was convenient for them. On the contrary, TTC trainees were not comfortable with their apprenticeship periods because they had semester final examination immediately after practice. Besides, the majority of trainees in all the three colleges believed that the training period was enough to gain the required occupational skill at the workplace. Conversely, supervisors from apprenticeship centers thought that the apprenticeship period allotted for practice was not sufficient to acquire the necessary occupational skills at the work place.

- 4.1.7 Majority of HSC trainees, nearly half of TTC and TVET trainees were placed for practice beyond 5 km from their resident. Accordingly, HSC and TVET trainees were traveled either on foot or by public transport.
- 4.1.8 Based on the findings, majority of trainees and trainers in all the three colleges, it was found that the implementation of apprenticeship training based on the legal framework was very low without any significant difference among trainee groups and trainer groups.
- 4.1.9 It was found that absence of field of study, less coordination between colleges and apprenticing organizations and misunderstanding about apprenticeship were some of the reasons forwarded by respondents for trainees to be assigned other than field of study.
- 4.1.10 Apprenticing organizations assign supervisors to assist trainees at the work place with statistically significant difference among trainees. Trainees in all the three colleges confirmed that supervisors assisted them at the required level. However, the performance rating had statistically significant among trainees.

- 4.1.11 According to the majority of trainee respondents, even though colleges assign apprenticeship coordinators at the work place, the follow up was done at most once in a week in TTC and HSC while it was done once in a month in TVET. The follow up frequency done by apprenticeship coordinators had great significant difference among trainees.
- 4.1.12 The relation between the theory thought and practice at the actual work place was rated average by trainees in all the three colleges. However, supervisors at the work place claimed that the theoretical background trainees gained had very much limited relation with the practical activities at the actual situation.
- 4.1.13 Trainees responded that factors that affect the practice in the colleges include shortage of training materials and the low qualification of trainers (below standard). Similarly, trainers below the required standard, shortage of manpower and shortage of training materials were the major problems stated by TTC, HSC and TVET trainers respectively.
- 4.1.14 From the finding, trainees in all the three colleges believed that financial expenses on apprenticeship training should be covered by the government. On the contrary, trainers suggested that establishing fund raising committee would solve apprenticeship financial problem primarily and apprenticing organizations should pay for apprentice as secondary solution to the financial problems observed during apprenticeship.
- 4.1.15 As the general solution for apprenticeship problems, it was found that TTC trainees gave high priority for the establishment of apprenticeship committee consisting of trainees, trainers and apprenticing organizations. Trainers in TTC on their part suggested that establishing advisory committee, as a primary solution for practice problems is a use full

mechanism. HSC and TVET trainees believed that arranging seminars and workshop to concerned bodies would solve apprenticeship problems.

- 4.1.16 The finding indicated that TTC and TVET set another apprenticeship period for those who were not attend their training beyond their control. Conversely, HSC had nothing except forced to withdraw from their studies.
- 4.1.17 The finding from the analysis of variance indicated that respondents from HSC had better understanding on the self-employed character of apprenticeship training than TTC and TVET respondents. Apprenticing organizations do not see apprenticeship as part of training and trainees had uncertainness on evaluations given by supervisors. Trainees and trainers in all the three colleges convinced that apprenticeship-training increases work habits and self-confidence. Apprenticing organizations were advantageous in conducting apprenticeship training.

4.2 Conclusion

According to the findings obtained, TTC was more advanced than HSC and TVET in selecting and arrangement of practice centers to make the training effective. Placement of trainees to practice centers was not based on the available facilities in HSC compared to TTC and TVET. Supervisors at the work place assist trainees frequently in spite of their skills are inadequate to give technical and occupational knowledge to trainees. On the other hand, training colleges did not follow apprenticeship practice sufficiently and frequently due to their negligence and poor management system.

Even though, trainees and trainers in all the three colleges believed that theory thought and practices are highly related, owners and supervisors at the workplace refused the competence of trainees to relate theory into practice. Shortage of training materials and trainers' qualification below the required standard were some of the factors that influence trainees' performance during apprenticeship training.

Efforts made by training colleges to familiarize objectives and implementation of apprenticeship to apprenticing organizations and the community was very much limited except seminars and material donations given by TTC. As a result, apprenticing organizations do not consider apprenticeship as part of the actual training and evaluations were not based on trainees' performance and the guideline. Accordingly, apprenticing organizations in particular and the community in general did not contribute their maximum effort to achieve objectives of apprenticeship.

4.3 Recommendations

Based on the findings obtained and the conclusion drawn, the following suggestions are forwarded to improve the apprenticeship program.

- 4.3.1 The criterion used to determine apprenticing organizations, the size of trainees assigned at a particular practice centers should be clearly understood by both trainees and trainers.
- 4.3.2 Since apprenticeship training was conducted during summer vacation for the majority of TVET and HSC trainees, the practice period should be designed to accommodate the needs of all trainees with special emphasis on trainees from rural areas and economically low families. The regional state should organize credit or cost sharing system that can be paid after graduation for expenses as food, transport and house rent during the apprenticeship.
- 4.3.3 Trainers in the three colleges in general, and TVET and HSC in particular were not at the required qualification standard set by MoE. The performance of mentors was not satisfactory. Hence, upgrading courses have to be organized for mentors/supervisors and trainers so that they can assist and evaluate trainees to satisfy the objective of the training. Besides, the Regional Education Bureau has to employ qualified and competent trainers to the respective colleges.
- 4.3.4 The training colleges and apprenticing organizations should establish short term and long term plans to evaluate weaknesses and strong points in order to take remedial actions for further implementation of the apprenticeship training.
- 4.3.5 Training colleges should arrange and give seminars, workshops and short-term trainings to owners of organizations, supervisors, heads of apprenticing organizations, trainees and families of trainees, and the community. Particularly, TVET and HSC should establish close link with apprenticing organizations to get the maximum effect from the training.

- 4.3.6 Except some, majority of trainees were assigned for practice in government owned organization. Since the objective of apprenticeship is to familiarize trainees with work that leads them to be employed or self-employed, trainees should attend practice at non-government owned organizations. Hence, the three colleges in particular and the regional state in general should design practice in non-government organization (especially non-domestic (foreign) NGOs, who are working in the region for a long period).
- 4.3.7 From the experience of countries stated in the literature and discussions held with owners and supervisors in apprenticing organizations, the time allotted for practice was not sufficient. Apprenticing organizations in rural areas and small towns may not provide sufficient materials for training and the involvement of trainees within a period not more than two months may be very much limited. Hence, to achieve the objective of the training successfully, the time allotted for practices should be at least six months of full day work experience like apprenticeship for agriculture trainees that take about eight months.
- 4.3.8 Non-Governmental Organizations and Religious Institutes are operating widely in the SNNPR for a long period especially in Education and Health sectors. Hence, the Regional Education Bureau should establish a system (like cooperative education) to which these organizations can participate in financing, supplying materials and give technical support for apprenticeship offering organizations and trainees during practice.
- 4.3.9 Until now, the performance of trainees gained through practice was determined by the supervisors' evaluation result. However, there is no mechanism whether these evaluations satisfy the standard requirements of the occupations or not. Hence, performance evaluation has to be given at the end of the apprenticeship and all stakeholders should participate in determining the standards, the contents, structure and durations of the apprenticeship.

- 4.3.10 The majority of the labor force especially in the informal sectors (such as Hotels, Building and Construction, Beautification, Trades, House and office furniture, Agriculture so on) of Ethiopia comes from traditionally trained work force. As the economy and technology of the country are not adequate to train all the required skilled force in the form of modern apprenticeship, there should be responsible organ that coordinate modern apprenticeship with traditional once so that long years experience of the community can contribute to solve shortage of trained workers and reduce youth unemployment.
- 4.3.11 Apprentice at the work place involves in productive activities, substitutes regular employees during absents and annual leaves. Hence, they contribute economic and social advantages to apprenticing organizations. Therefore, apprenticing organizations should pay incentives depending on the duration of the training and type of occupation trainees engaged.
- 4.3.12 The researcher recommended that a study has to be done how the former graduates performance looks like at the work place (if they are employed or self employed) and how apprenticeship training helped trainees to be employed or self-employed. Further, critical study has to be done how apprenticeship training played a role in satisfying the skilled force requirements of the country and in reducing unemployment that helps to revise and develop the curriculum and implementation of apprenticeship.

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APPENDIX – 1

Trainers' Response on Follow up Practices

NO.	Items	Respondents (Teachers)						Total		D f	Ca X ²	Ta X ²
		TTC		HSC		TVET						
		N0.	%	N0.	%	N0.	%	N0.	%			
1	Do organizations assign supervisors to help apprentice?											
	Yes	31	93.94	10	62.25	20	57.14	61	72.62			
	N0	2	6.06	6	37.50	15	42.88	23	27.38			
	Total	33	100	16	100	35	100	84	100	2	12.61	5.99
2	If you say yes for 1, to what extent do they assist trainees at the work place?											
	Highly	5	16.13	-	-	-	-	5	8.47			
	Sufficiently	14	45.16	-	-	8	40.00	20	33.90			
	Moderately	4	12.90	1	10.00	6	30.00	11	18.64			
	Low	8	25.81	5	50.00	6	30.00	19	32.20			
	Very low	-	-	4	40.00	-	-	4	6.78			
	Total	31	100	10	100	20	100	59	100	8	35.79	15.51
3	How do supervisors in organizations evaluate trainees?											
	based on guideline	22	66.67	8	40.00	16	28.57	46	54.76			
	based on personal relation	3	9.09	6	30.00	19	33.93	28	33.33			
	based on their own criteria	6	18.18	4	20.00	15	26.79	25	29.76			
	do not evaluate at all	2	6.06	2	10.00	6	10.72	10	11.90			
	Total	33	100	20	100	56	100	84	100			
4	Training college follow apprentice practices at the work place											
	Yes	31	93.94	10	62.50	21	60.00	62	73.81			
	N0	2	6.06	6	37.50	14	40.00	22	26.19			
	Total	33	100	16	100	35	100	84	100	2	11.46	5.99
5	If your answer in 4 is yes, how frequently											
	Daily	12	38.71	6	60.00	1	4.76	19	30.65			
	Once a week	12	38.71	-	-	4	19.05	16	25.81			
	Once in two weeks	7	22.58	4	40.00	2	9.52	13	20.97			
	Once in a month	-	-	-	-	14	66.67	14	22.58			
	others	-	-	-	-	-	-	-	-			
Total	31	100	10	100	21	100	62	100				
6*	If no, what are the reasons?											
	Shortage of man power	2	28.57	6	100	11	47.83	19	52.79			
	Management's negligence	2	28.57	-	-	-	-	2	5.56			
	Shortage of finance for per diem	1	14.29	-	-	8	34.78	9	25.00			
	responsibility already handled by apprenticeship centers	1	14.29	-	-	4	17.39	5	13.89			
	Others	1	14.29	-	-	-	-	1	2.78			
	Total	7	100	6	100	23	100	36	100			

$\alpha=0.05$ significance level

*multiple selection

APPENDIX -2

Colleges Trainees and Trainers Profile

Colleges	Established Date		Number of Trainees			Number of Trainers			Student Teacher Ratio	Programs
			M	F	T	M	F	T		
TTC	1987	No.	2344	1097	3441	69	8	77	44.69 :1	10+1* 10+3
		%	68.12	31.88	100	89.61	10.39	100		
HSC	1996	No.	396	374	770	31	6	37	20.81:1	10+1 10+2 10+3
		%	51.43	48.57	100	83.78	16.22	100		
TVET	1997	No.	694	454	1148	59	8	67	17.13:1	10+1 10+2 10+3
		%	60.45	39.55	100	88.06	11.94	100		
Grand Total		No.	3434	1925	5359	159	22	181	29.60:1	
		%	64.08	35.92	100	87.85	12.15	100		

*Extension Only

Source: Colleges Record Office

APPENDIX -3
Addis Ababa University
Graduate Studies
College of Education
Department of Business Education

Questionnaire to be Filled by Apprentice

The purpose of this questionnaire is to gather data on implementation of apprenticeship training programs in three colleges at Arba Minch. Accordingly, the success of this study depends on your genuine responses. Be sure that the information you provide will be kept confidential and used only for academic purpose.

Please note that

- ❖ No need of writing your name
- ❖ Where alternatives are given, please mark your answer by using “X” in the corresponding space.
- ❖ Please be free as possible as to answer questions.

Part I. General background

1. Name of college -----
2. Training program enrolled 10+1 10+2 10+3
3. Field of study-----
4. Sex Male Female
5. Age -----

Part II. Selection, arrangement and placement of apprenticeship centers and apprentice

1. Distance of organization you were assigned from your college?
- a. Less than 5 Km b. 10K-15 Km
- c. 5 Km-10 Km d. beyond 20 Km
2. How did you travel from your resident to the organization you were assigned for apprenticeship? a. on foot b. Organization’s service
- c. public transport d. Training institution provides service

3. Did you sign an apprenticeship contract with the organization you took apprenticeship?

Yes No

4. If your answer in number 3 is "yes", put 'X' on the elements of contracts.

Full name Sex age Address Occupation

Condition for termination Condition for insurance

Condition for payment Duration of apprenticeship period

5. Have you been given orientation? Yes No

6. If you say "yes" for 5, what are the elements of orientation?

a .rules and regulations b .how to use materials

c .how to handle customers d. How to keep secret e. others

7. Are these criteria set for selection of apprenticeship training organizations?

Yes No

8. If your say "Yes" in number 7, which of the following are among the criteria?

a Number of employees in the organization

b. Type of ownership (government or non-government)

c Voluntary ness of organizations

d Availability of supervisors and occupations.

9. Who assigns trainees to the selected organizations?

a . Vocational counselor b. Trainers /teachers

c . Organizations' request d. Through trainees personal contact

e. college management

10. What criteria are used in assigning trainees to the selected organizations?

a. Field of study b. Distance from Residence

c. Interest of apprentices d. On lottery basis

11. Who determine the number of trainees assigned to the selected organization (multiple selection is possible)?

a. Each organization b. By training institutions

c. On the basis of statements of the law d. No formal procedure

e. Upon the agreement between institutions and organizations

12. Apprenticeship training periods were arranged (multiple selection is possible)?

- a. During summer vacation c. Shifting system
 b. For specified period d. Others

13. Do you think the period indicated in "12" convenient for majority of trainees?

Yes No

14. If you say 'No' for number 13, which of the following be convenient period (multiple selection is possible)? ?

- a. at the beginning of each year b. at the middle of each year
 c. at the end of each year d. at the end of the program
 e. during semester break

Part III. Implementations of apprenticeship

15. Were you assigned apprenticeship based on your field of study?

Yes No

16. If your answer in number 15 is 'No', which of the following is possible reason (multiple selections are possible).

- a. Absence of field of study is in the organization
 b. Lack of supervisor in the field of study
 c. Organizations do not understand the importance of apprenticeship
 d. employees in the organization are not voluntary to supervise

17. For how long do apprenticeship trainees attend training at a time in the work place?

- a. one month b. three weeks c. two weeks d. one week
 e. Two month

18. What is your opinion regarding the duration of training at the work place?

- a. more than enough B. Enough c. Not enough

19. Did organizations assign supervisors to apprenticeship centers?

Yes No

20. If your answer in 19 is "yes", to what extent do they assist apprentice at the work place

- a. highly b. sufficiently c. Moderately
 d. low e. very low

21. Did training colleges follow apprenticeship practices at the work place?

Yes No

22. If your answer for number 21 is "yes", how frequently?

- a. Daily b. Once a week
 c. Once in two weeks d. Once in a month e. others

23. If your answer in number 21 is "No" which of the following be possible reasons (multiple selection is possible)?

- a. shortage of manpower
 b. negligence of the management
 c. Shortage of finance for per diem
 d. responsibility already handled by apprenticeship centers
 e. Others

24. Do organizations give incentives to apprentice? Yes No

25. If your answer in number 24 is "yes" in what form was the incentive given (multiple selection is possible)? a. pocket money b. Meal

- c. transport d. refreshment
 e. others

Part IV. Linkage between theoretical knowledge and apprenticeship

26. To what extent do apprenticeship training related with the theory taught in colleges?

- a. Very high b. High c. Medium
 d. Low e. Very low

27. Do you think that trainees gained the required occupational skill?

- Yes No

28. If your answer in number 27 is "yes", to what extent do trainees gained the required occupational skill.

- a. very high b. Sufficiently c. moderately d. low e. very low

29 If your answer in number 27 is "No", which of the following be possible reason

- a. no proper assistance was given during apprenticeship
 b. apprentice low academic performance
 c. mismatch between training and working materials
 d. apprentice do not follow apprenticeship training regularly

30. Do you think that training problems in the college influence on the apprenticeship training? Yes No

31. If your answer is number 30 is 'yes' which of the following be the causes? (multiple selection is possible)

- a. shortage of training materials b. outdated training materials
 c. theoretical courses were not covered d. Trainers below the required standard

32. Give your opinion on the following items by assigning the following values.

Strongly agree 5, very agree 4, agree 3,

Disagree 2 and strongly disagree 1

- | | 5 | 4 | 3 | 2 | 1 |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| a. Apprenticeship helps to be self-employed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Organizations do not see apprenticeship as part of training | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. apprenticeship helps to adapt new technologies at the work place | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. apprenticeship increases work habits and self-confidence | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. trainers and supervisors understand rules and regulations of apprenticeship | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. organizations give evaluations without proper follow up | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. organizations benefited from apprenticeship | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Part V. Problems in Implementing Apprenticeship

33. Were there some trainees forced not to attend the apprenticeship training?

Yes No

34. If you say 'yes' to number 33, what are the possible reasons? (Multiple selections is possible)

- a. absence of apprenticeship centre
 b. Inconvenient of apprenticeship period
 c. Being non- regular trainees
 d. large number of trainees compared to the number of organizations

35. Supervisors in the organization evaluate trainees'
- a.. based on the apprenticeship guideline b. based on their own criteria
- c. based on personal relations with apprentice d .do not evaluate at all
36. What mechanism was set for those apprentices who do not attend the apprenticeship training due to different reasons? (Multiple selections is possible)
- a. forced to withdraw
- b. another apprenticeship period was arranged
- c. additional theoretical learning for compensation was give
- d. nothing was done
37. Which of the following do you think solve financial problems on apprenticeship programs? (Multiple selections is possible)
- a. apprentice should pay for the training offered
- b. the government should allocate the budget for apprenticeship
- c. apprenticeship organizations should pay for apprentice
- d. there should be apprenticeship fund raising committee
- e. apprenticeship offering organizations should be exempted from tax
38. Which of the following do you think solve problems on apprenticeship programs in general? (Multiple selections is possible)
- a. establishing advisory committee b .give financial support to apprentice
- c. arrange work shops and seminars to concerned bodies
- d. establish apprenticeship committee containing trainees, trainers and supervisors
- e. revising the apprenticeship proclamation

APPENDIX -4

Addis Ababa University

Graduate Studies

College of Education

Department of Business Education

Questionnaire to be filled by trainers

The purpose of this questionnaire is to gather data on implementation of apprenticeship training programs in three colleges at Arba Minch. Accordingly, the success of this study depends on your genuine responses. Be sure that the information you provide will be kept confidential and used only for academic purpose.

Please note that

- ❖ No need of writing your name
- ❖ Where alternatives are given, please mark "X" in the corresponding space.
- ❖ Please be free as possible as to answer open end questions.

Part I. General Background

1. Name of college -----
2. Sex male female
- 3) Qualification MA/M SC BA/B SC Diploma Other
4. Field of specialization _____
5. years of service ____
 - a. as a teacher ____
 - b. as educational officer ____
 - c. as principal ____
 - d. other ____

Part II. Selection and Arrangement of Apprenticeship

1. Are there criteria set for selection of apprenticeship training centers? Yes No
2. If you say "Yes" for number 1, which of the following are among the criteria (multiple selection is possible).
 - a. number of employees in the organization
 - b. interest of organizations
 - c. Availability of supervisors and occupations
 - d. Type of ownership (government or non-government)
 - e. others
3. Who assigns trainees to the selected organizations (multiple selection is possible)?
 - a. Vocational counselor
 - b. Trainers /teachers
 - c. organizations' request
 - d. Through trainees personal contact
 - e. college management
4. What criteria are used in assigning trainees to the apprenticeship centers?

- a. Field of study b. Distance from Residence
 c. Interest of apprentices d. On lottery basis e. others
5. Who determine the number of trainees assigned to the apprenticeship centers (multiple selections are possible)? a. each organization b. training institutions
 c. advisory committee d. No formal procedure
 e. agreement between colleges and organizations
6. Is there apprenticeship contract with apprenticeship centers? Yes No
7. Apprenticeship training periods were arranged
 a. during summer vacation c. Shifting system
 b. For specified period d. Others
8. Is the period you indicate in "7" convenient for majority of trainees? Yes No
9. If you say 'No' for number 7, which of the following period be more suitable (multiple selection is possible)?
 a. at the beginning of each year b. during semester break
 c. at the end of each year d. at the end of the program

Part III. Implementations of Apprenticeship

10. Were apprentice assigned training based on the field of study? Yes No
11. If your answer in number 10 is 'No', which of the following be possible reasons (multiple selections are possible)?
 a. absence of field of study b. Lack of supervisor in the field of study
 c. Misunderstandings of organizations about apprenticeship
 d. less coordination between colleges and apprenticeship centers
12. For how long do apprenticeship trainees attend training at a time in the work place?
 a. one month b. three weeks c. two weeks d. one week
 e. two month
13. What is your opinion regarding the duration of training at the work place?
 a. more than enough B. Enough c. Not enough
14. Did organizations assign supervisors to apprenticeship centers? Yes No
15. If your answer in 14 is "yes", to what extent do supervisors assist apprentice at the work place? a. highly b. sufficiently c. Moderately
 d. low e. very low

16. Did training colleges follow apprenticeship practices at the work place? Yes No

17. If your answer for number 16 is "yes", how frequently?

a. Daily b. Once a week

c. Once in two weeks d. Once in a month e. others

18. If your answer in number 16 is "No" which of the following be possible reasons (multiple selection is possible)?

a. shortage of manpower b. Management's negligence

c. shortage of finance for per diem

d. responsibility already handled by apprenticeship centers others

Part IV. Linkage between Theoretical Knowledge and Apprenticeship

19. To what extent do apprenticeship training related with the theory taught?

a. Very high b. High c. Medium

d. Low e. Very low

20. Do you think that trainees gained the required occupational skill? Yes No

21. If your say "yes" for 20, to what extent do trainees gained the required skill?

a. very high b. Sufficiently c. moderately d. low e. very low

22. If your answer in number 20 is "No", which of the following be possible reasons?

a. no proper assistance was given b. apprentice low academic performance

c. mismatch between training and working materials

d. apprentice reluctant (unwillingness) e. others

Part V. Problems in Implementing Apprenticeship

23. Do you think that colleges' training problems influence on the apprenticeship training?

Yes No

24. If your answer is number 23 is 'yes' which of the following be the causes? (multiple selection is possible)

a. shortage of training materials b. outdated training materials

c. colleges poor management d. Trainers below the required standard

e. shortage of manpower f. others

25. Supervisors in the organization evaluate trainees

- a. based on the apprenticeship guideline c. based on their own criteria
b. based on personal relations with apprentice d. do not evaluate at all

26. Which of the following do you think solve financial problems on apprenticeship programs? (Multiple selections is possible)

- a. apprentice should pay for the training offered
b. the government should allocate apprenticeship budget
c. apprenticeship organizations should pay for apprentice
d. there should be apprenticeship fund raising committee
e. apprenticeship offering organizations should be exempted from tax

27. Which of the following do you think solve problems on apprenticeship programs? (Multiple selections is possible)

- a. establishing advisory committee b. give financial support to apprentice
c. arrange workshops and seminars to concerned bodies
d. establish apprenticeship committee containing trainees, trainers and supervisors
e. revising the apprenticeship proclamation

28. Were there a law supporting the implementation of apprenticeship training?

Yes No

29. If your answer in number 28 is 'yes' which of the following are used in your institution?

- a. apprenticeship proclamation b. labor proclamation
c. apprenticeship guideline d. Others

30. What mechanism was set for those apprentices who do not attend the apprenticeship training due to different reasons? (Multiple selections is possible)

- a. forced to withdraw
b. another apprenticeship period was arranged
c. additional theoretical learning for compensation was give
d. nothing was done

31 . Give your opinion on the following items by assigning the following values.

Strongly agree 5, very agree 4, agree 3,

Disagree 2 and strongly disagree 1

	5	4	3	2	1
a. Apprenticeship helps to be self-employed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Organizations do not see apprenticeship as part of training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. apprentice adapt new technologies at the work place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. apprenticeship increases work habits and self-confidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. trainers and supervisors believed on apprenticeship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. apprenticeship evaluations are given based on performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. organizations benefited from apprenticeship training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX -5
Addis Ababa University
Graduate Studies
College of Education
Department of Business Education

Interview guide for supervisors (owners) in apprenticeship centers

The purpose of this interview is to gather data on implementation of apprenticeship training programs in three colleges at Arba Minch. Accordingly, the success of this study depends on your genuine responses. Be sure that the information you provide will be kept confidential and used only for academic purpose.

Please note that

- ❖ No need of writing your name
- ❖ Where alternatives are given, please mark “X” in the corresponding space.
- ❖ Please be free as possible as to answer questions.

Part one: General Background

1. Name apprenticeship centers _____
2. Sex male female
- 3) Qualification MA/M SC BA/B SC Diploma Other

Part Two: General Questions

4. What arrangements are made before and during apprenticeship?
5. How do you support apprentice at the work place?
6. How do you express the relevance of apprenticeship training?
7. To what extent do apprentice relate theory with practice at the work place?
8. What are the major problems in apprenticeship training and steps that have been done to overcome these problems?
9. What is your suggestion about apprenticeship in general?

APPENDIX -6

Addis Ababa University

Graduate Studies

College of Education

Department of Business Education

Interview guide for Deans and vocational counselors/ apprenticeship coordinators

The purpose of this interview is to gather data on implementation of apprenticeship training programs in three colleges at Arba Minch. Accordingly, the success of this study depends on your genuine responses. Be sure that the information you provide will be kept confidential and used only for academic purpose.

Please note that

- ❖ No need of writing your name
- ❖ Where alternatives are given, please mark "X" in the corresponding space.
- ❖ Please be free as possible as to answer questions.

Part One: General Background

1. Name of college -----
2. Sex male female
- 3) Qualification MA/M SC BA/B SC Diploma Other

Part Two. General Questions

4. What criteria are used in choosing and assigning apprenticeship centers? Are they appropriate?
5. What arrangements are made before and during apprenticeship?
6. How do you support apprentice at the work place?
7. How do you express the relevance of apprenticeship training and to what extent do apprentice relate theory with practices?
8. What are the major problems in apprenticeship training and steps that have been done to overcome these problems?
9. What do you suggest to improve the implementation of apprenticeship in general?

APPENDIX-7

Programs Specifications and Field of Studies

Colleges	Field of study	Programs					
		10+1		10+2		10+3	
		Regular	Non-Regular	Regular	Non-Regular	Regular	Non-Regular
T T C	Language	x	✓	x	x	✓	✓
	Mathematics	x	x	x	x	✓	✓
	Natural Science	x	x	x	x	✓	✓
	Social Science	x	x	x	x	✓	✓
H S C	Midwifery	✓	x	✓	x	x	x
	Public Health Nurse	✓	x	✓	x	✓	x
	Clinical Nurse	✓	x	✓	x	✓	x
T V E T	Accounting	✓	✓	✓	✓	x	x
	Auto Mechanic	✓	✓	✓	✓	✓	✓
	Electricity	✓	✓	✓	✓	✓	✓
	Electronics	✓	x	x	x	✓	x
	General Mechanics	✓	x	✓	✓	✓	✓
	Information Technology	✓	✓	✓	✓	x	x
	Machine Technology	✓	x	✓	x	✓	✓
	Secretarial Science	✓	✓	✓	✓	x	x
	Surveying	✓	✓	✓	✓	x	x
	Wood Work Technology	x	x	✓	x	x	x
	Hair Dressing	✓	x	x	x	x	x
	Bakery	✓	x	x	x	x	x
	Tailoring	✓	x	x	x	x	x
	Building Construction	✓	✓	✓	x	x	x

Source: Colleges' Registrar

✓ : Existence of the Program

X : Non-Existence of the Program

APPENDIX-8

Apprenticing Organization Selected for observation and Interviews

Organizations	Owner ship	
	Government	Non-government
Arba Minch Hospital	✓	
Arba Minch University	✓	
Arba Minch Textile Factory	✓	
Arba Minch Telecommunication	✓	
Arba Minch Electric and Power Authority	✓	
Arba Minch Municipality	✓	
Bikalech Beauty Salon		✓
Chamo Primary School	✓	
Central Pastry		✓
GamoGofa Zone Finance Office	✓	
Kacha General Garage		✓
Merab Abaya Primary School	✓	
Merab Abaya Health Center	✓	
Mic- Tec Computer Center		✓
Tamene Office and Home Furniture Production Center		✓

APPENDIX-9

Organization of Education and Training in Ethiopia

Age	Grade	Higher Education			
19			Middle TVET		
18	12	secondary	Diploma		Word Of Work
17	11		Certificate 1		
			Certificate 2		
16	10	General Education	Junior Vocational Training		
15	9		Basic Vocational Training(NF)		
14	8				
13	7				
12	6				
11	5				
10	4		Primary Education		
9	3				
8	2				
7	1				
6		Pre school			
5					
4					
				Non- Formal Education (NF)	
				Formal and	

Source: MoE (1994)

3/ ጽህፈት ቤቱ የየወቅቱን ሳይንስና ቴክኖሎጂ እድገት እንዲሁም የህብረተሰቡን ፍላጎት መሠረት በማድረግ በዚህ አንቀጽ ንዑስ አንቀጽ ፱ ሥር የተዘረዘሩትን ትምህርቶች ማሻሻል ይችላል።

ክፍል ሶስት
ስለ ሥራ ላይ ልምምድ

፲፱. የሥራ ላይ ልምምድ ፕሮግራም አወሳሰን

ጽህፈት ቤቱ አሠሪዎችንና ጉዳዩ የሚመለከታቸው ሌሎች ወገኖችን በማማከርና የሙያ ሥልጠና ደረጃን መሠረት በማድረግ ለየሙያው የሥራ ላይ ልምምድ ፕሮግራም ይወስናል።

፳. በሥራ ላይ ልምምድ የሚሳተፉ ድርጅቶችን ስለመምረጥ

ጽህፈት ቤቱ በሚያወጣው መመሪያና መስፈርት መሠረት ክልሉ ሥልጣን የሰጠው አካል የሥራ ላይ ልምምድ የሚሰጡ ድርጅቶችን ይመርጣል ይመዘግባል።

፳፩. የድርጅቶች ተግባርና ኃላፊነት

ማንኛውም ለሥራ ላይ ልምምድ የተመረጠ ድርጅት ከዚህ በታች የተመለከቱት ተግባርና ኃላፊነቶች ይኖሩታል፡-

- ፩/ ስልጣኞችን ተቀብሎ ማለማመድ፤
- ፪/ ተለማማጁን መለማመድ በሚገባው ቦታ ላይ በማስማራት ተገቢውን የሥራ ልምድ ማግኘቱን ማረጋገጥ፤
- ፫/ የተለማማጁን እውቀትና ክህሎት ማዳበር የሚችል የእለት ተእለት የሥራ አፈጻጸሙን ለመከታተልና ለመገምገም ሙያዊ ብቃት ያለው ሱፐርቫይዘር መመደብ፤
- ፬/ ተለማማጁን ከድርጅቱ የአሠራር ሥርዓትና ደንብ ጋር ማስተዋወቅ፤
- ፭/ ተለማማጁን እንደ መደበኛ ሠራተኛ በመቁጠር አስፈላጊውን ግብዓት ማቅረብ፤
- ፮/ የተለማማጁን ሰብአዊ ክብርና መብት የመጠበቅና የማስከበር፤

3/ The Office may, based on the science and technology of the relevant time and the societal needs, modify the courses stated under Sub-Article 2 of this Article.

PART THREE
APPRENTICESHIP

19. Determination of apprenticeship training program

The Office shall, in consultation with employers and other concerned parties, and on the basis of pre-determined occupational standards, determine apprenticeship program for every occupation.

20. Organizations participating in a apprenticeship training

A body empowered by the State shall, based on guidelines and criteria determined by the office, select organizations that shall participate in the provision of apprenticeship training.

21. Duties and responsibilities of organizations

Every organization selected for apprenticeship training shall have duties and responsibilities as provided hereunder:

- 1/ To receive and provide apprenticeship training to trainees;
- 2/ To assign the apprentice in the place appropriate to his training and to ensure that the apprentice acquires proper work experience;
- 3/ To assign a capable supervisor who would enhance the knowledge and skills of the apprentice, and should follow up and evaluate the day-to-day performance of the apprentice.
- 4/ To acquaint the apprentice with work rules and methods of the organization;
- 5/ To consider the trainee as a regular employee and to provide him the necessary inputs;
- 6/ To respect and enforce human dignity of the apprentice;

- ፮/ የተለማማጅን የሥራ አፈጻጸም ብቃት በመገምገም ውጤቱ ለማስፈጸም ተቋሙ ማስተላለፍ፤
- ፯/ ተለማማጆች ከማሰልጠኛ ተቋሙ ያገኙትን ክህሎት በመገምገም ስለ ማሰልጠኛ ተቋሙ የማስፈጸም ብቃት ለሚመለከተው ተቋም አስተያየት መስጠት፤
- ፱/ ከማስፈጸም ተቋማት ጋር በትብብርና በቅንጅት መስራት።

ጸ፪. የማሰልጠኛ ተቋማት ተግባርና ኃላፊነት

የሥራ ላይ ልምምድን በተመለከተ ማንኛውም የማሰልጠኛ ተቋም ከዚህ በታች የተመለከቱት ተግባርና ኃላፊነቶች ይኖሩታል፡-

- ፩/ ሠልጣኞች የሚያደርጉትን የሥራ ላይ ልምምድ የሚከታተልና የሚቆጣጠር አስተባባሪ መመደብ፤
- ፪/ የአሠራር መመሪያና ዝርዝር መርህ ግብር በማውጣት ለተግባራዊነቱ ከድርጅቶች ጋር በቅንጅት መሥራት፤
- ፫/ የሠልጣኞችን የሥራ ላይ ልምምድ ግምገማ ውጤት ለሥልጠና ማጠናቀቂያ ማስረጃ አሰጣጥ በመመዘኛነት መጠቀም፤
- ፬/ ከአለማማጅ ድርጅቶች የሚቀርቡለትን አስተያየቶች በመቀበል የሥልጠናውን ብቃት ማሻሻል።

ጸ፫. የተለማማጅ ተግባርና ኃላፊነት

ማንኛውም ተለማማጅ ከዚህ በታች የተመለከቱት ተግባርና ኃላፊነቶች ይኖሩታል፡-

- ፩/ የሥራ ላይ ልምምዱን በትጋት ማከናወን፤
- ፪/ ለልምምድ የተሰጡትን መሣሪያዎችና ቁሳ ቁሶች በጥንቃቄ መያዝና በቁጠባ መጠቀም፤
- ፫/ የሥራ ላይ ልምምድ እንዲያደርግ የተመደበበትን ድርጅት የአሠራር ሥርዓትና ደንቦችን ማወቅና አክብሮ መፈፀም፤
- ፬/ በሌሎች ሕጎች የተደነገገው እንደተጠበቀ ሆኖ በሥራ ልምምዱ አጋጣሚ ያወቀውን የድርጅቱን የሥራ ሚስጥር ለሌላ አሳልፎ አለመስጠት፤

- 7/ To evaluate the performance of the opprentice and transmiate the results to the training institution.
- 8/ by inspecting the skill that the trinee acquired forward opinion to the concerned organ as to the competency of the instition.
- 9/ To cooperate and work in coordination with training institutions;

22. Duties and responsibilities of training institutions

Regarding apprenticeship traning, every training institution shall have duties and responsibilities as provided hereunder:

- 1/ To assign a coordinator who shall follow up and control apprenticeship training undergone by trainees;
- 2/ To prepare operational guidelines and detailed programs and for their implementation, to cooperate and work in coordination with organizations;
- 3/ To utilize result of performance evaluation relating to apprenticeship training as a criterion for certification.
- 4/ by receiving opinion from the institution improve the fuaruty of the training.

23. Duties and responsibilities of an apprentice

Every apprentice shall have duties and responsibilities as provided hereunder:

- 1/ To diligently perform the apprenticeship training;
- 2/ To utilize with care and economy tools, equipment and materials supplied to him for training purposes
- 3/ To be acquainted with and to observe work rules and methods of the organization to which he is assigned for apprenticeship training;
- 4/ Without prejudice to the provisions of other laws, not to divulge to any other person work secrets of the organization that he acquired in the course of his apprenticeship training;

፭/ የራሱንም ሆነ የሌሎችን ጤንነት ወይም ሕይወት አደጋ ላይ የሚጥል ወይም የድርጅቱን ጥቅም የሚነካ ጉዳይ ሲያጋጥም ለሚመለከተው አካል ወዲያውኑ ማሳወቅ።

፳፬. የሥራ ላይ ልምምድ ውል
የሥራ ላይ ልምምድ ውል በማሠልጠኛ ተቋም በድርጅትና በተለማማጅ መካከል የሚመሰረት ሆኖ፡-

- ሀ/ የተለማማጁን ሙሉ ስምና እድሜ፤
- ለ/ የማሰልጠኛ ተቋሙን ስምና አድራሻ፤
- ሐ/ የድርጅቱን ስምና አድራሻ፤
- መ/ ተለማማጅ ልምድ እንዲያገኝበት የታቀደውን የሙያ ዓይነት፤
- ሠ/ የሥራ ላይ ልምምዱ የሚጀመርበትን ቀንና የሚፈጀው ጊዜ፤
- ረ/ የሥራ ላይ ልምምዱ ውል የሚቋረጥበትን ሁኔታ፤ የሚያመለክት መሆን አለበት።

ክፍል አራት
የማሠልጠኛ ተቋማት የሚቋቋሙበትና የሚካሄዱበት ሁኔታ

፳፭. በሥልጠና ሥራ ተሳታፊ ስለመሆን

መንግሥታዊ፣ የግል እና መንግሥታዊ ባልሆነ ድርጅት ባለቤትነት የሚካሄድ ማንኛውም ማሰልጠኛ ተቋም የቴክኒክና ሙያ ትምህርትና ሥልጠና መስጠት ይችላል።

፳፮. ስለመቋቋም

፩/ ተጠሪነቱ ለፌዴራል መንግሥት አካል የሆነ መንግሥታዊ ማሰልጠኛ ተቋም በሚኒስትሮች ምክር ቤት በሚወጣ ደንብ መሠረት ይቋቋማል፤

፪/ ተጠሪነቱ ለክልል መንግሥት አካል የሆነ ማንኛውም መንግሥታዊ ማሰልጠኛ ተቋም በክልሉ መንግሥት በሚወጣ ስነ መሠረት ይቋቋማል፤

5/ To immediately inform the concerned body, when he becomes aware of, any event or fact which may be a threat to his or others' health or life, or which may affect the interests of the organization;

24. Contract of apprenticeship

Contract of apprenticeship shall be concluded among a training institution, an organization and an apprentice, and shall contain the following

- a) Full name and age of the apprentice;
- b) Name and address of the training institution;
- c) Name and address of the organization;
- d) The occupation in which the apprentice is intended to undergo apprenticeship training;
- e) The date on which the apprenticeship shall start and its duration; and
- f) Conditions for the termination of the contract of apprenticeship.

PART FOUR
ON THE ESTABLISHMENT AND OPERATION OF TRAINING INSTITUTIONS

25. Participation in the provision of training

Any public or private training institution or one owned by a nongovernmental organization may provide technical and vocational education and training.

26. Establishment

1/ Any public training institution which is accountable to any organ of the Federal Government shall be established by Regulations to be issued by the Council of Ministers.

2/ Any public training institution which is accountable to any organ of a State shall be established by a law to be issued by the State legislature.

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

Name

Hailu Selassie Woldegenna

Signature



Date of approval

May 7, 2007

I here by confirmed that this thesis is my original work and that all sources of the materials used for the thesis have been duly acknowledged.

Name

Muchie Tebeje Ejigu

Signature



Date

May 25, 2007