ADDIS ABABA UNIVERSITY
COLLEGE OF EDUCATION
SCHOOL OF GRADUATE STUDIES

THE PRACTICE AND MAJOR CHALLENGES OF KEYBOARDING EDUCATION IN TVET COLLEGES

(THE CASE OF ADDIS ABABA CITY ADMINISTRATION)

BIRUK AMHA ASRESSE

JUNE 2008
ADDIS ABABA

ADDIS ABABA UNIVERSITY

COLLEGE OF EDUCATION

SCHOOL OF GRADUATE STUDIES

THE PRACTICE AND MAJOR CHALLENGES OF KEYBOARDING EDUCATION IN TVET COLLEGES

(THE CASE OF ADDIS ABABA CITY ADMINISTRATION)

BIRUK AMHA ASRESSE

A THESIS SUBMITTED TO THE GRADUATE SCHOOL OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE DEGREE OF MASTER OF ARTS IN CURRICULUM AND INSTRUCTION

JUNE 2008

ADDIS ABABA

ADDIS ABABA UNIVERSITY

COLLEGE OF EDUCATION

SCHOOL OF GRADUATE STUDIES

THE PRACTICE AND MAJOR CHALLENGES OF KEYBOARDING EDUCATION IN TVET COLLEGES

(THE CASE OF ADDIS ABABA CITY ADMINISTRATION)

BIRUK AMHA ASRESSE

Approved By Board of Examiners

Abdulaziz Hussien	21·7·08	
Chairman, Department Graduate Committee.	**Date**	**Signature**
Getachew Adugna (PhD)	21/07/08	
Advisor	**Date**	**Signature**
Dr. Dessu Wirtu	21/07/08	
Internal Examiner	**Date**	**Signature**
Worku McConnen	21/07/08	
External Examiner	**Date**	**Signature**

ACKNOWLEDGEMENTS

First and for most, I am thankful to GOD almighty who made every thing possible, without whom I would not have breath at all.

Next, I wish to extend my deepest gratitude and appreciation to my advisor Dr. Getachew Adugna for his precious time and devotion to provide me with his invaluable professional support and guidance throughout my engagement in the thesis work.

Furthermore, I would like to thank the Scholl of graduate studies for financing this research study.

I wish to express my thanks to the staffs of Softnet College for their encouragement and cooperation to share me their valuable time and resources, especially many thanks to the owner of the college Eng. Daniel Aserat and his family, who lent me chance to continue my post graduate study, while I was working in the college office.

My deep gratitude goes also to my intimate friends Ashenafi Ali and Bekalu Yimer for their provision of Laptop Computer and editorial comments, while I was writing this thesis.

Words cannot express my deepest thanks to my family and my wife for their material and moral support during my whole study.

Table of Contents

CHAPTER FOUR
Presentation, Analysis and Interpretation of Data

CHAPTER FIVE
Summary, Conclusions and Recommendations

LIST OF TABLES

LIST OF APPENDICES

ABSTRACT

This study sought to survey the practice and major challenges of keyboarding instruction in TVET colleges of Addis Ababa. Specifically, the researcher sought to create awareness on the importance of keyboarding skill for all students with implication of prioritizing the skill among experts for further studies to be conducted at the national level in the area to make curricular revisions. One hundred fifty-eight secretarial students, Business Education Teachers, Business Education Department Heads and secretarial workers participated from 10 sampled TVET Colleges found in Addis Ababa using both random and purposive sampling techniques. Descriptive survey method was employed to conduct the research. Questionnaire, interview and document analysis were employed as the methods of data collection. The data collected was, thus analyzed qualitatively and quantitatively as the situation demands. Consequently, the findings indicated that almost all of the participants are not in a position of supporting the curriculum for typing instruction found in middle level TVET colleges. Because, the curriculum is identified as having traditional nature in that it offers mass typing training only for secretarial science students, using manual typewriter; in view of the fact that, the existing situation is demanding the training to be for all students due to the prolific use of computer in schools, home and work place. As a result, most prefer keyboarding and principle of typing as an appropriate course for mastery of the skill. Regarding the training tools used in the curriculum, over half of the respondents' reaction was found to be similar to the literature, i.e. since all the machines have the same keyboard layout they identified the tools to be used based on the existing situation of school. The participants suggested that considering the socio-economic condition of the country in general and that of Addis Ababa in particular, the training of keyboarding skill for all to be in the Middle level (TVET and preparatory) schools which are preferred as the best place for keyboarding instruction for all students over higher education and elementary levels. Finally, they also identified four major challenges of the program, i.e. luck awareness, lack of access to training tools, negative attitude to keyboarding skill and lack of teachers. Recommendations and implications were given for TVET curriculum specialist as well as for further research and studies.

ACRONYMS

ecbp: engineering capacity building program.

EPRDF: Ethiopian People Revolutionary Democratic Front.

MOE: Ministry of Education.

TVET: Technical and Vocational Education and Training.

UNESCO: United Nation Educational Scientific and Cultural Organization.

IBM: International Business Machine Corporation.

ICDR: Institute for Curriculum Development and Research

CHAPTER ONE

Introduction

1.1 Background

Educational training and life-long learning are keys to improved standard of living in making the environment adoptable and suitable for life. Ethiopian education and training system is therefore undergoing a major change in traditional religious school to the current modern education. The reasons for this change are simple: the need to get people in to employment, either working as employees for organizations or as entrepreneurs, for their own benefit and the benefit of their country (ecbp, 2006). In order to achieve these and other needs, the current Ethiopian education system also came to effect throughout the country in 1994 after the overthrow of Socialist Government by EPRDF in May 1991(MOE, 2002).

Among the different categories of the current Ethiopian education system, it is the Technical and Vocational Education that is largely believed to determine the competitive strength of a country's productive workforce. According to ecbp (2006), the goal of current TVET system is to create a competent, capable and adaptable work force that can update and expand their knowledge and skill continuously in times of rapidly changing technology. To realize these goals this program was launched through out the country at different levels and by different agencies both public and private, within the formal and non-formal education system. First, there are higher education institutions that train top-level professionals and technical personnel. Second, below the university level, there are a number of technical vocational training schools and institutions, which cater for the training of personnel at the middle and lower levels. A third category of TVET institutions comprises of training centers attached to certain public agencies like the Federal Micro and Small Enterprises Development Agency to provide quality certificate level training for the employee or would be employees of

agencies. The fourth category is the informal; on the-job-training that usually takes place in the apprenticeship style (MOE, 2003).

This program was launched in four broad branches of occupational areas: Business, Industry, Agriculture and social services. Though all the four broad branches have vocational dimensions, according to the World Bank (1990), it is clearly indicated that the business studies are the most vocationally oriented ones. But, what the history of business education curriculum shows that during the period from 1868 to 1971-over 100 years-the traditional equipments and goals remained the same for most business education curriculum. In fact, since the early 1980's, with the introduction of personal computer and telecommunications dominating office automation, business education curriculum began to show radical changes in its curriculum (Stark, 2000).

The intention of the researcher is not to examine the challenges of the general business education curriculum rather focuses particularly on the practice and major challenges of Keyboarding/typewriting education to middle level secretary students in the broad field of business education curriculum.

Traditionally, Keyboarding/typewriting has been the primary course taught to secretary student by business education curriculum, however because of the advent of computer, currently keyboarding instruction is provided in high school and elementary school curricula especially in highly developed countries like USA and Europe. In addition, because of the widespread prolific use of computers by younger students, the need for keyboarding skill has spread to the middle and even the elementary schools worldwide. This presents more to be demanded companies for keyboarding course in business education program.

According to Stark (2000:25) "the role of business educators is to prepare students to succeed in a work environment where change is continuous and

adoptability is an essential employee attribute". The researcher also agree that, business teachers must not resort to teaching only button pushing but rather they should focus on the conceptual approach in order to bring adoptability attribute. And also the main reason the researcher accepted the idea is that concepts will be easily transferred to technology and it is also apparent that the business community needs employees that can quickly and easily adapt to technological changes in the work place. Thus, in line with this workers of the next generation must be taught a broad set of skill that includes adaptability, flexibility and ability to learn new technology. This also determines the success and survival of business education. Therefore, the researcher believes that the curriculum of business education should be assessed to able to keep pace with the needs of its customers.

Following the implementation of the new Education and Training Policy of Ethiopia in 1994, several changes have been introduced on the parts of business education curriculum. For instance, regarding the skill of keyboarding, the new curriculum introducing keyboarding education for 10+1 and 10+2 secretary students nation wide (MOE, 2003). In fact, typewriting/Keyboarding education in Ethiopia dates back to the introduction of modern western education and it has been used for several years due to its useful applications in organizations. Considering this and other importance of the skill in office, the new TVET also continued offering four typing courses only to secretary students at 10+1 and 10+2 levels Appendix, 6. And also it recommends the manual typewriters to be used as a tool for the instructional processes. Even the government is currently on the processes of revising and implementing the TVET curriculum based on newly identified occupational standards. This draft document demands to offer keyboarding course only for secretarial students at 10+1 level using both computer and manual typewriter Appendix, 7. However, all students seem in need of keyboarding skill which is totally absent in the curriculum of business education.

1.2 Statement of the problem

The rapid growing demand as well as usage of computer in offices, Schools and at home people believed that the keyboarding training to be given for all students. In this regard "A skill to all citizens" "A skill for all people", is the slogan of keyboarding skill training in developed countries like U.S.A and Europe (Sandberg-Diment, 1998). The trend to keyboarding skill demand goes differently due to the need for global communication. All human being needed to communicate worldwide i.e. every one needs to communicate in one-way or another. Among the different communication skills, keyboarding skill is one of the most crucial computing skills, next to speaking the English language (Maxam, 2002). However, in most developing countries, the skill of keyboarding did not get attention for long period of time due to the gradual development of their economy as well as technology. Today in most schools the course of keyboarding is given in smaller rate and also most considered it as a skill needed by a relatively students who would become clerks and typists or secretaries (UNSCO, 2000).

In fact as the researcher's experience shows some teachers, students, training institutions and company workers agree that all students should learn to typing/keyboarding, but there is considerable less agreement among these stakeholders on the question of when, how much, for whom, by whom and how.

Concerning the issue a series of national, regional and institutional meetings were held where the researcher was one of the participants at the regional and institutional levels. In those meetings, there were hot debates among the participants about the practice and challenges found in the training institutions as well as in organizations.

The debates were focusing on four questions, namely 1) When should keyboarding thought? At elementary school, high school, or Middle level or what? 2) How can be keyboarding thought? By a teacher, using manual typewriter or by a computer using software or what? 3) How many courses are and how much time is enough for mastery of the skill? 4) For whom should keyboarding thought?

After a lot of discussion due to different perception and lack of research on the area participants could not come to agreement and still the curriculum is suffering from these problems unless solutions identified and forwarded to curriculum specialist based on research conducted in this area.
Therefore, this situation initiated the researcher to study the topic that is entitled as the practice and major challenges of keyboarding education in TVET colleges.

Thus, the main purpose of the study is to see the practice and major challenges of keyboarding education in TVET colleges of Addis Ababa via the following basic research questions.

The study will attempt to answer the following basic research questions:

- What are the views of teachers, learners, professionals to Middle level TVET keyboarding education curriculum?

- What are the major challenges of the programs & why do they occur?

1.3 Significance of the Study

Conducting a study in the ongoing practice and challenges of typing education will have the following significance:

1. It helps to create awareness among the community and stakeholders (students, teachers, employers) about the current status of typing education in the curriculum and its relevance for all students.
2. By revealing the practice, the study may bring them to the attention of curriculum designers at the Ministry of Education as well as Addis Ababa education Bureau level for appropriate action.
3. It will also help other study as stepping-stone to carryout in-depth study on the problem.

1.4 Delimitation of the Study

Since the study is not to see the implementation as well as evaluation processes of the curriculum the researcher was not going to apply the numerous programs required for implementation and evaluation purpose. However an attempt was made to show the clear picture of the situation. And the depth of the study is limited to the question of suitability' and significance of the current curriculum. Hence, issues related to the curriculum plan itself, such as its general framework, and the way it has been designed and organized will not be considered.

1.5 Limitation of the Study

This study can be studied from different aspects. However, due to shortage of time and finance, the study was delimited to only the curriculum of Typing Education that are held to equip TVET secretarial students found at 10+1 and 10+2 level in both governmental and non governmental colleges of Addis Ababa.

As far as my knowledge and effort concerned couldn't get similar research or study conducted on typing or similar issues related to the practice of the training in the Ethiopia context and this situation creates a problem in finding a local bench-mark and push the research to look up only the experience of other countries, particularly that of USA and Europe.

CHAPTER TWO

Review of Related Literature

2.1 Writing and Technology

If some one has been asked a question about the essence of writing, for sure the answer could not be associated to the ability to handwriting, but what literatures tell us the meaning of writing essentially was referred to handwriting. But due to the rapid global technological innovations writing currently is withdrawn from its original essence, i.e. from the handwriting technology transferred to the machine writing technology the typewriter and computer (Dolch & Bloomster, 1988). According to Hubert, (1989), each new technology had found place in writing history and in so doing; it may supplement or replace older technologies. For instance, Warwood, (1985), describes that in the late 18th century, papyrus was replaced by paper and in the early 20th century, the typewriter replaced handwriting for business communications and now the word processor is replacing the typewriter for data inputting processes. However, Conard (1992) describes that no one technology has ever proven adequate for all needs. As a result, he argues that the skill of all these writing technologies has a big place in daily life and should be transferred to the child through education. In this regard much effort was made in the curriculum of many countries of the world.

It seems from this idea that educators throughout the ages have turned to the technologies in an attempt to answer the following questions in order to prove all writing technology needs; like how do we teach writing? How do we motivate students to write? How do we provide situations, which allow the teaching of writing and provide students with this motivation? How do we use writing as learning technology? (Wood and Freeman, 1932). They also attempt to classify writing in classroom instructions in two ways: students are expected to learn " how to write" and they are also expected to be able to

use writing to acquire and demonstrate knowledge in other areas of the curriculum. Many other educators, (Change, (1995), Russin, (1995)) therefore from the 'classical' tradition of handwriting to the present modern machine writing, have argued that writing cannot be divorced from the acquisition of other knowledge, this lead to various writing across the curriculum efforts, or to writing courses that attempt to link writing with the learning of other subject (Doris, 1964).

By the 1920's, educators began to experiment with using the new technology-typewriters-to help children learn to write (Anderson, 1983). These experiments were quite successful. In the largest-scale controlled study, Wood and Freeman (1932) followed 2383 students as they learned to write on portable typewriters over a two years period. They found that the students who used typewriters wrote with more expression, showed higher reading scores, became better spellers, and enjoyed writing more than students learning to write using conventional methods. Similarly, Doris, (1964) found that typewriters helped the English development of high school students. This implies that beside the application of writing skill for daily activity, teaching students this skill has also its own contribution to gain knowledge in other subject areas.

In the 1960's and early 1997's, there was another smattering of interest in using computers in language arts (Jackson, 1989). Fry, a noted reading specialist at Rutgers University, published a book on using typewriters in language arts, which was not widely used. Perhaps seeing a new window of opportunity, Fry (1984) revised his text and reissued it as an approach to keyboarding in language arts.

Thus, the teaching of writing skill given at a very early stage in academic career starting from the lower level (handwriting) to the higher level (typewriting/keyboarding) appears essential to daily life and communication.

As a result, one can understand writing is and has always been a sophisticated technology: skill is required to learn, to read, and to write in today's information age.

2.2 Writing Machines: Historical Context

The concept of typewriter dates back at least to 1714 and its evolution is part of the ongoing history of the human need to communicate. The development of the typewriter was the result of a desire both to speed up this communication process and to produce an aid for the blind in reading and writing (Conard, 1992).

According to Donald (1983) before 1867, there were a number of efforts to produce a mechanical writing machine that could write faster than a man with a pen, probably some 30 serious attempts were made; however, none was commercially successful. Their most prevalent drawback was speed for all their mechanical features. As Adler (1973) writes, the early writing machines were operated more slowly than a man with a pen.

In 1867, Christopher Latham Sholes began to work on a machine later called the "type-writer". The first typewriters were remembered in Sholes thought as it was operated faster than a man with a pen. The machines were not perfect and to improve the machines, between 1867 and 1873 with the help of Carlos Glidden, Samuel Soule, and Matthias Schwalbach, the firm of E.Remington and Sons (the famous industry for manufacturer of sewing machines, fire arms, and farm equipment), agreed to manufacture the machine on 1 march 1873, with Sholes.

William K.Jenne, chief mechanic in the Remington superintendent of mechanics redesigned and adapted the Sholes model to mass production techniques. On 30 April 1874, the first "Sholes & Glidden" machine was manufactured and the typewriter went on sale to the public (Adler, 1973).

The ability to view what is typed as it is typed is taken for grant to day .In all early keyboard typewriters, however, the type bars struck upwards against

the bottom of the platen. Thus, what was typed was not visible until the typing of subsequent lines caused it to scroll in to view (Donald, 1983). As a result the early keyboard typewriters, except the first "Sholes & Glidden" machine, were called "blind writer" (meaning the operator could not see what was being typed) and wrote capital letters only. However with this and other new technologies the first "Sholes & Glidden" machine were manufactured and came in to existence on 30 April 1874 and went to market. It was also mounted on a sewing machine base and used a foot treadle to return the carriage, which was seen as a major new features addition to typing technology (Picture, 1).

Picture 1. The First Commercial Typewriter

It was a wonderful machine of that time. This first machine also went through several revisions until 1878 when the Remington mode 2 was introduced. The second model was a greatly improved machine that could write both capitals and lower-case letters, also had a hand-returned carriage and was designed for tabletop use. This has created mechanical typewriters to be manufactured and made available to the market, as it is currently familiar to all of us in many offices.

In its early stage of investigation, the typewriter was one of a number of economic and non-economic forces at work for developed countries like America and Europe. Its invention was the key event and the demands for typists were largely increased due to: the growth and complexity of firms, the relatively low wage rates of women and the commercial acceptance of typewriter by business within a few years, every major firm in the United States were had women typists (Davies, 1974). Further more, the full public acceptance of the typewriter came into effect and most companies introduced portable typewriter and specialized machines for certain clerical office work before World War I (Adler, 1973).

When the technology of handwriting compared with that of typewriting, the contribution of typewriting for the past hundred years was remarkable. For instance, the typewriter not only met many of the new needs of the changing office but also eliminated potential problems. It was, when operated by a trained typist, much faster than writing by hand. Hubert (1989) claimed that it saved "40 minutes an hour" or "5 hours and 20 minutes of a business day".

According to White (1989), after these early keyboard typewriters one of the major improvements made on the typewriter was an electrically powered typewriter. Since the first years of typewriters development more than 100 years ago, man had relied on type bars, metal levers set into motion by a typists finger, to print each letter on a piece of paper. In 1961, however, the International Business Machine Corporation (IBM) introduced a revolutionary way to make a typewriter work. This, as reported by IBM was, the IBM "selectric" typewriter, which replaced type bars and moving carriages with a printing element. Then after, the second model was introduced in 1971, the IBM "selectric" typewriter II, which also had a number of features addition to typing technology. This machine became the first machine in the history of typing to actually make typing errors disappear from original copies (Anderson, 1983). Since their introduction, IBM "selectric" typewriters have become the most popular typewriters for training in schools and universities, as well as in most aspects of business (Sandberg-Diment, 1998). Currently, IBM introduces different technology to the typewriter: 1/Magnetic card typewriters, which are able to send prerecorded information to each other; 2/ typewriters with a memory, which allows the typist to store every thing, typed and allow recalling and revising previously typed material; and 3/ typewriters right to left, which reverses the functioning of the conventional model, designed for English and other languages (Sandberg-Diment, 1998).

Another machine in the typing history is the computer or word processor. According to Anderson (1983:45), compared with the typewriter "the word processor is a machine for pacific and faint of heart so quite, so plastic, and

so good". It is perhaps to say that the word processor is not too mechanical technology as the 'archaic' typewriter, in that it does not require a great deal of force while typing.

As a result, of these new machines most developed country writers currently were looking the former manual typewriter as a technology that is giving way to electric typewriter and word processor. In deed in developed world the proliferation of the personal computer with word processing, typewriters have faded into near-darkness and are now used mainly by people without access to computer and the training to use it, and used for specialized applications such as filling out forms, the mono spaced, stark, and some people, young or old, prefer to use a typewriter occasionally (Sandberg-Diment, 1998, Cochran-smith, 1991). Cochran-smith also concludes that, as the manual typewriter is a historical object of a forgotten world, recognizable and appreciated only by elder people in highly developed countries like USA and Europe. However, his conclusion isn't working for both developing countries and to the writing skill acquired from manual typewriter because the skill acquired from this machine is a transferable skill to the modern technology as the experience of developing countries shows i.e. if one have a skill of writing on manual typewriter, it is possible to write on electric typewriter as well as on computer keyboard with out additional training. But the reverse application does not hold true and too difficult.

Regarding writing skill in different machines, i.e. the writing skill on typewriter and computer keyboarding, Anderson (1983) compared and concluded that the computer keyboard is almost the same as the typewriter keyboard layout. Because, the 1874 Sholes & Glidden typewriters already established the QWERTY layout for the letter keys and this layout of keys has become the de facto standard for English language typewriter and computer keyboards. Moreover this lay out creates a foundation for relationship between the two. So that, the similar nature of the typewriter keyboard to that of the modern computer keyboard allows developing countries to teach

students typing skill as per their socioeconomic as well as environmental condition (Donald, 1983).

2.3 Concepts of Typewriting and keyboarding

What both typewriting and keyboarding involves is the manipulation of keys on a standard keyboard with the emphasis on the typed copy or output. The output is produced on paper at the same time as the input is provided. In fact, the placement of the letters of the alphabet commonly used punctuation marks; numbers and symbols are almost exactly the same as the placement on the typewriter keyboard. Thus, the inputting or keyboarding on the typewriter is very similar to the skill of inputting or keyboarding on a computer (Donald, 1983). According to Warwood, (1985) definition of keyboarding is the act of placing information in to various types of equipments through the use of a typewriter-like keyboard. In addition to this, Donald (1983), compared and states that the typewriting includes the production of documents like memos, letters, reports, essays, etc. and the production of these documents is done with the same kind of a word processing programs. The difference is that word processing packages are believed to be easier than typewriter keyboard due to its soft touch keyboard than the manual typewriter.

Typing/ keyboard skill acquisition both in manual typewriter as well as computer, is found to be the most important thing than from the choice of the best machine for use, In this regard, many writers Sandberg-Diment (1984), Donald (1983), described as it is highly essential skill to daily life communication. However, there is limited prior research to typing/ keyboard skill relevance to daily life communication and this limitation might arise from the newness and rapid innovation of digital communication, which has only recently risen to prominence of the personal computer and word processor in the 1960s to the rise of the Internet in the 1990s. One of the

earliest, most appropriate and important pieces of research around typing were conducted in 1908 at the university of Montana by William Book (Book 1908). Book undertook a careful evaluation of the typing skill development for mechanical typewriting of eleven learners of different skill over a long period of time. During the study the learners practiced under observation for hours each week and had introspection sessions where they discussed their learning and methods to improve their skill. In fact currently most researches were conducted in developed on different issues of keyboard skill, such as on the topics of why should be keyboard taught how should be keyboard taught, when should be keyboard taught, etc and the central idea of some research works discussed and summarized here under.

2.4 Purposes of Teaching Keyboarding Skill.

A review of the literature shows that there was little of activity on the subject of teaching keyboarding during the early to late 1980's. Of course this was the time that writing machines (typewriters, computers, calculators etc) being bought and placed in home, office and schools. During this time typing classes were taught in higher level and were known as typewriting classes for secretaries. When the computer found its way into the school setting, thoughts about typing instruction had to change.

According to Russin, (1995:1) the increasing use of computers in business, industry, and education and in the home has made the efficient use of computers as a basic skill. Since the keyboarding is the standard method used to enter data into a computer, students must be given an opportunity to use this tool of the information age effectively by developing basic fundamental keyboarding skills.

If the computer is going to become a tool for the student, much like a pencil or pen is used as a tool, then the student needs to fully develop his/her keyboarding abilities (Warwood, 1985:2).

Because of the continuing increase in the use of computers in our personal, educational, and professional lives, good keyboarding skills are more important than ever. Despite technological advances in optical-character and voice recognition, the keyboard is, and will continue for some time to be, the most widely used input device in communicating with computer. Therefore, keyboarding can no longer be considered a secretarial skill. It is a basic communication skill needed by all individuals (Chang, 1995:2).

For instance, in developed countries students who have adequate keyboarding skills use their time at the computer efficiently that is, they can concentrate on problem solving or composing, rather than on the mechanics of typing (Warwood, 1985). In support of this Goins, (1996) said that without adequate keyboarding skills, writing using computers is difficult and time consuming. In her report on keyboarding skills and computer anxiety, Mary Artwohl also reported that familiarity with the keyboarding skill stimulates interest and enables concentration to be focused on the task to be accomplished, thus awareness and understanding about computers is increased and anxiety is decreased (Artwohi, 1989).

According to a research made by Mc Entee, (1994:2) confirm that, " students who have become proficient in keyboarding complete work faster and are more efficient in their use of the keyboard" Obviously students will benefit greatly from keyboarding instruction. They will use their time more wisely. They will use school equipment (computer/typewriter) effectively. But most importantly, teaching students to keyboarding lays the foundation for a vital lifelong skill (Conard, 1992:1).

2.5 Keyboarding in Schools: Curricular Issues

By 1878, typing was taught in Scott-Browne school in New York City and this school is believed to be the first institution to offer such a course (Adler, 1973). Since the invention of the typewriter in 1874, typing /keyboarding

skill acquisition in the curriculum has gone through tremendous changes, though the changes occurred gradually. For example, between the periods 1868 to 1971, the traditional equipment and goals remained the same for most typing/ keyboarding education in the Business Education Curriculum.

However, in the early 1980s when the personal computer and telecommunication dominated office automation, keyboarding /typing education has been challenged by drastic changes in its curriculum (Sandberg-Diment, (1998). The reason for this, as Anderson (1983), pointed out was, the fast advancement of technology on the general Business Education Curriculum. And this situation brings today in many countries the courses in typing/ keyboarding and shorthand to be replaced with the new technological courses such as electronic mail, desktop publisher and telecommunication.

Such a drastic change also affects the Business school community (Business Department Heads, Business Teachers, and Secretarial Students) and the curriculum in general. Supporting this Sandberg-Diment (1998), also said that Business teachers are faced with many challenges due to the changes caused by technology. For example, their philosophy of education forced to include these new changes in society. And this brings their teaching strategies and training to be enhanced as well as many of their courses to be altered or changed completely.

Regarding their philosophy, he concluded that the issues facing teachers are complex and many. However, the most important challenge is for teachers to accept society's entrance into the information age. And he advise, "In this technological world teachers advised to stop thinking in terms of teaching only a narrow range of traditional office skills" (Sandberg-Diment, 1998:12). As he describes school curriculum should be ready to introduce future physicians to the communication, authors should be taught skills using desktop publishing, and all students need skill in writing/ typewriting

/keyboarding/. However, to accomplish this goal traditional course must be altered and training should be provided for teachers to the new technological courses.

White (1990) elaborated that every one has to accept one thing - change is necessary in the Business Education curriculum especially at the time of rapid technological advancement. In support of this, Stark (2000:9) also advised that as equipment and technology changes, so must the training and staff development be changed. And teachers must be ready to begin a constant retraining process as well as teach theses new technologies to other staff members. This is absolutely true and should be familiarize to all Business Education curriculum.

Regarding students, their challenges could be seen from two perspectives-one is from the perspective of student in developed countries and the second is from the perspective of students in developing countries. When we look at, especially to developing countries' students' perspective, the issue of keyboarding skill becomes more complicated. For instance as described in a study conducted in Stanford University School of Education 2007, yet many of the developing country students are inadequately educated or receive no education at all. Almost one in five of the world's 650 million primary school age children are not in school (UNESCO, 2000). This shows that the individual and societal consequences are profound; even we can say children of developing countries are consigned to poverty and isolation- just like their parents: they are in lack of opportunity, not capacity for learning. As an essential skill and prerequisite for participation in a global information economy, according to the study report, children of developing country will continue to live in isolation and poverty unless some sort of solutions identified to teach skill of keyboarding in the curriculum for all children to participate and take advantages in an increasing and rapidly globalize world.

As a starting solution, in 2005, there was a project launched as an initiative to develop a $100 laptop- a technology that could revolutionalizing on how we educate the world's children. The one laptop per child initiative project intends to present a unique opportunity for educators to distribute learning contents to millions of children in the developing world.

The aim of the project was to allow these children to participate and take advantage of global communication .To achieve this aim, keyboarding skill was taken as one of the most essential skill i.e. the ability to type on a keyboard accurately with in a reasonable time was an essential and pre-requisite for participation in a globalize information economy. Indeed, it is true that in an increasingly and rapidly globalize information economy, the ability to keyboarding and knowledge of English language are becoming the two essential skills for participation. What we can conclude from these ideas is that teaching our children's how to type will be appropriate and unquestionable because with out this skill participation in global communication will be some how difficult. As Sandberg-Diment (1998) describes, without sufficient keyboarding skill, higher order computer use, such as emailing, data entry, and programming and Internet research is not possible. And he recommends the acquisition of basic ability to type is especially crucial for school-age children of developing countries. Possibly the skill will allow them to participate in the global communication and help them for advancement of information work. That is to say, information work is broadly seen as a general activity for using, transforming, consuming and managing information. However the problem with teaching keyboarding skill to all students in developing countries is a debatable issue. Indeed it is noted that mostly it revolves around the fact that, keyboarding has been traditionally thought at the middle level only for secretaries and the level of technology at many developing countries is believed to be very limited. The disadvantages of these are that all students cannot learn keyboarding at the same time and there should be choice for the question of how keyboarding

should be taught in developing countries. Indeed the choice should be research-based recommendations.

Thus, in today's information age, usage of writing machines like typewriter and computer interfaces appears relevant to school curriculum. Because, many people need to spend a significant amount of their time in writing letters, sending email messages, preparing documents, editing books, and the like (Sandberg-Diment, 1998). So, in order to do their and other daily activities, the skill of keyboarding or skill of inputting data from mind to the writing machine is a crucial skill for daily life and communication. Jackson (1989), also confirms that in today's digital information world, the typing skill is often the only medium of communication and the absence of this skill in the curriculum could prevent many activities altogether. This shows that as keyboarding skill is became a skill needed by all people and not only by secretaries. However, the question how is this skill could be taught, especially in developing countries is the basic concern as said before.

In search of answer to the above question, Stark (2000) suggests that developed countries should support developing countries by sending their old typewriters as well as computer to speed up the keyboarding skill acquisition needed worldwide. Currently, there is a big gap between the two developed and developing countries, be in developed countries, keyboarding starts at the young age and this contributes largely to the advancement of information work. As a result, they are aware of the relationship between early keyboarding skill development and future activity participation and their curriculum allows students to participate in keyboarding and digital communication at a very early stage in their academic careers as early as 2nd grade (White, 1990).

When compared how this skill could be acquired, is becoming a debatable issue in developing countries, especially those who have limited resource in computers as well as the traditional manual typewriters. Moreover, the issue

becomes complicated because the following components of knowledge are required for keyboarding skill acquisition (Zinsser, 1994).

Reading and writing letters, words, sentences;

2) Understanding relative position of letters on the keyboard;

3) Optimal keyboard finger placements and motions;

4) The motor motion of keystrokes to produce the desired text or action.

Generalizing his recommendation Zinsser advises developing countries to make better decisions about prioritizing keyboarding skill and other technology training into a full-fledged curriculum in the future based on conducting sound research in the area.

2.6 Appropriate Tools: Training Context

Skills such as keyboarding to be acquired there must be some sort of training tools used. And mostly typewriters and computers were recommended for such a skill in the curriculum. Regarding the appropriate tools for teaching keyboarding skill i.e. teaching keyboarding skill using manual typewriter and teaching keyboarding skill using computers, Nathan (1986), forwarded the following idea particularly to developing countries. Even though the choice of tools depends on the existing socioeconomic condition of the country, what some researches found and conclude is, as manual typewriters in this digital world looked a machine of the forgotten world, due to the introduction of the digital computers.

However, as he condemn, that despite the arrival of this digital computers, manual typewriters have crucial importance for teaching purpose and this could not be overlooked because they still can play a crucial role, they are more valuable and climate friendly machines that require minimal

maintenance (Nathan, 1986). Moreover, the transitions to the computer keyboard and laptop are smooth for students with mastery of the typewriter and therefore the manual machine could be preferable for training purpose (West, 1993). What could be understood from this idea is that one can teach students keyboarding skill using both the traditional and digital machines because both of the machines can allow students to input data from the mind to the paper i.e. if one can learn the traditional manual typewriter, there will not be a need to retrain students on computer keyboard.

Regarding the appropriate teaching tools, Zinsser (1994) also said that there is no clear-cut recommended machine to teach keyboarding skill. As a result, he advised the teaching of manual typewriting in developing countries should be strengthened in an information age rather than waiting computers and electricity come to rural areas.

In fact when selecting equipment for keyboarding course, particularly to low-grade level, it is only computer keyboard, electronic or electric typewriters strongly recommended (Nathan, 1986). Because manual typewriters are not advisable for young students as they may not have the physical strength required to depress the keys with ease and may allow them to become frustrated and discouraged (Stephen, 1989). In addition, typewriters may be noisier than computers and may have to be used for production aspects of the traditional courses such as proper formatting of correspondence, tabulation, and manuscripts when students reach at higher grades.

2.7 Appropriate Level for Keyboarding Instruction

After reading the literature looking for when keyboarding should be taught, the researcher found different assumptions from different perspectives. Some advocate that teaching of keyboarding should start in elementary school. Others say at the high school level, while still others say middle level or

higher education level is the best time to have formal keyboarding classes taught (Conard, 1992,Change, 1995).

However, most of them agreed that starting keyboarding in elementary school could be a problem. Because, students of elementary schools level have not fully developed physical strength to learn the skill. For a student to learn and perform keyboarding they must involve mental processes as well as finely coordinated muscular movements (Goins, 1996:96).

Kindergarten or elementary school level is the beginning to learn and recognize the alphabet and the searching over the keyboard to find a letter may be helps in the student's ability to recognize the letters of the alphabet. But a teacher should not expect the student to be able to keep his/her hand in a home row position and learn to type correctly.

Others researcher also report that students should be taught to keyboard as soon as they are physically and intellectually ready, but there are conflicting ideas as to when this occurs. Some say that it doesn't occur until ages 10 to 12 (Chang, 1995, Stephen, 1989). But it was shown by Russin (1995), that even 8 and 9 year old or third and fourth graders could master the keyboarding.

Some reports say that high school is an ideal time for effective keyboarding instruction, because students at this level can develop the skill in a relatively short time and can transfer this skill to language-based activities (Jackson, 1989). Most students have developed their finger dexterity and eye-hand coordination sufficiently to be able to succeed in learning the keyboard by the time he/she is in high school (Mc Entee, 1994:8). Thus, high school may be the last opportunity for many students to be taught the correct keyboarding skill.

Despite the fact that, the decision is made based on a detail feasibility study, Jackson and Warwood (1985) agree that typing should be taught just prior to the student's required use of the keyboard for text entry such as using a word processor. In support of this Maxam said that "Whenever possible, keyboarding instruction should be presented before students are assigned other computer-related activities" (Maxam, 1993:242).

In summary to the question: When is it best to teach typing? - The researcher found that many articles reported ideas that would be in agreement with most of the following suggestion:

Students should become aware of the typing/ keyboarding process as soon as they are asked to input information into the writing machines such as computers or typewriters. Students should learn the correct position of their fingers on the keys and the correct posture as they learn the writing machines. If this learning process takes place in the elementary school, a keyboarding awareness should be taught. However, a formal keyboarding course should be delayed until the students have matured in their finger dexterity and eye-head coordination.

2.8 Approaches to Teaching Keyboarding Instruction.

Should a teacher teach keyboarding with manual typewriter guided by a textbook or by a computer using keyboarding software? According to Russin, (1995) experimental research results show that there is no significant difference between student's successes being taught by a teacher or by software tutorial. And both methods appear to be equally effective, however using keyboarding software should be the method of choice because doing so frees the teacher to do other things such as monitor students more closely to make sure each student uses the proper keyboarding technique. It also allows the teacher to give more individual attention to the students. In

support of this method Olenzock, (1998:56) provides the following lists to inform teachers what most of today's software can do:

- Analyze the present skill level of the individual learner.
- Identify weaknesses in an individual's keyboard skill (technique, not errors) at the present skill level hindering the individual from progressing to a higher skill level.
- Electronically generate structured individualized materials designed to improve various technique deficiencies (not keyboarding errors) impeding an individual's progress to a higher skill level.
- Generate technique and motivational prompts to assist the individual in achieving higher skill levels.
- Guide and motivate the individual through technique presentations, practice, and feedback.
- Reward students for achieving higher skill levels.
- Complement existing textbooks so that exercises from existing textbooks can be evaluated using featured built into the skill building software.
- Provide feedback/records to students.
- Provide feedback/records for the teacher.

And Olenzock (1998) comments teachers who do not insist on good keyboarding techniques, as they are not helping their students; actually they are failing to give their students the best education they deserve.

Regardless of the method selected, teacher or software, to teach students, computer software is believed to be more appropriate as indicated. But it should be in the environment where computers are used in the curriculum if not teacher with typewriter method is appropriate as to the remote areas of developing countries students, which are identified by lack of electricity and computer accesses.

2.9 Duration for Keyboarding Course?

The ideal length of typing course has been reported to be various lengths. Warwood (1995) and Change (1995) both reported similar time of approximately 32 sessions over and eight-week period in each of their studies. "After 15 hours of appropriate of typing, students with instruction were judged to be approximately twice as fast as those who had no formal typing instruction" (Jackson, 1986:8). Fifth graders who were given of typing for 40 minutes, every day, for nine weeks showed a gain in typing speed to an average 20 words per minute (Kercher, 1985:5). Jackson (1986) also reported those 30 hours of instruction as crucial. And he went on to offer a choice of how to get 30 hours of instruction into the curriculum: Fifteen hours of typing instruction in each of two years of school, or ten hours in each of three years. Another opinion reported was: "The typing should be taught rapidly and logically. The entire keyboard (letters, numbers, and symbols) should be taught as rapidly as possible, in perhaps four weeks (Fry, 1994:796). The suggestions, as to what is the correct length for keyboarding instruction time, were as numerous as the number of researchers who had suggestions to make. And it was impossible to determine from the literature what the absolute best length was. However most of the latest research advocated 25 to 30 hours will be required to adequately retrain middle school students in developing typing skill on using computers.

2.10 Overview of Keyboarding Instruction in TVET Curriculum

According to the curriculum guide prepared by Ministry of Education and Institute for Curriculum Development and Research (ICDR), secretarial skill is one of the specialized fields in commercial stream (Business Education). Any office, be it large or small, needs professional and career minded secretary for the smooth flow of its activities and to provide the required assistance to office leader or executives. Proper management of an office

activities and good treatment of office guests required well-trained secretaries.

By considering the importance of secretarial activities in an office, the curriculum guide of the secretarial course for year one (10+1) and year two (10+2) designed employable skills following ICDR module.

Among the different modules designed, typing skill is one of the major employable and relevant skills divided in to four jobs i.e. Copy Typist, Secretary Typist, Typist and Clerk Typist. To accomplish these four jobs, four courses i.e. keyboarding for 160 hrs. Principles of typing for 166 hrs and intermediate Typing for 112hrs, at 10+1 level and production typing 205 at 10+2 level have been implemented and currently practiced in schools. In addition to this for the mastery of the jobs described above, the curriculum guide recommends different equipments and consumable materials such as Amharic and English typewriter, Computer, Desks, typing paper, carbon paper, stencils, correcting fluid, Ribbon, chart showily home keys, etc. (MOE: 2003) (Appendix 6). The government is currently on the processes of revising and implementing the TVET curriculum based on newly identified occupational standards. This draft document demands to offer keyboarding course only for secretarial students at 10+1 level for a total of 700 hrs using both computer and manual typewriter Appendix, 7.

CHAPTER THREE

Research Method

3.1 Design of the Study

This study was intended to survey the practice and major challenges of typing education in Addis Ababa TVET colleges .It was attempted to survey the current situation in the city by taking those Governmental and Non-governmental TVET colleges that are currently teaching typing education for 10 + 1 & 10 + 2 secretarial students

For the study, the researcher used both descriptive & survey research method, because:

- Descriptive method was helped the researcher simply to describe the existing condition of typing education in the curriculum using words or numbers. The method was also chosen to answer the question of what is happening now in typing education. What is the status quo of the situation in typing education?
- Survey method was also used to infer ideas about typing education based on a sample of the population. In other words the method was used to describe the information about the large number of people (Addis Ababa) inferring from the responses obtained from a smaller group of subject (sample TVET colleges).

3.2 Sample Respondents and Sampling Techniques

This study was carried out in TVET institutions currently teaching typing education in Addis Ababa. According to ecbp (2006), there are a total of 42 (12 governmental and 30 private) TVET institutions, teaching typing education at 10+1 and 10+2 levels. Among these, 10 colleges (4 from

government and six from private colleges) were selected proportionally using random sampling techniques. This was done to make the result of the study more reliable as Wiesma,W (1995) said, that is in survey study if the population is large, say 100 schools ,the minimum sample size to make the result of the study more reliable could be 10 schools or 10% of the total population. The rationales for using random sampling technique in determining the sample TVET institutions are the homogenous nature of the curriculum used in both type of institutions and the chance of each training institutions to be selected equally for the study.

The subjects of this study were Business Education Department Heads, Business Education Teachers, and 10+1 and 10+2 Secretary Students found in sample TVET institutions. Accordingly based on recommendation from the experts (Business Education Department Heads) some organization workers, as secretaries were included in the study using purposive sampling method. The rationale for this method was to include those secretaries who are graduates of the new curriculum.

Regarding the subject respondents' number, after collecting the total number of respondents from the respective college Registrar Offices the researcher come to decision to included all available Business Education Department Heads and all Business Education Teachers i.e. 7 Business Education Department Heads and 30 Business Education Teachers were found in the sample schools and all identified as respondents. This is because these two bodies were believed to be the motor of the study in describing the practice and major challenges of typing education. However, this doesn't mean that the other subjects (students and graduated secretaries) were not important. In determining student respondents' number, the researcher included 10% of each sample institutions secretary student using stratified sampling technique. The method was used to select only students respondents

because the population of this group found to be heterogeneous i.e. even though all of them are students of the same department there is a difference in their experience as well as notions concerning the relevance of typing skill application in offices as a result in order to give equal chance for each strata population the researcher planned to use stratified sampling method. The reliability and efficiency of the stratified sampling depends up on the allocation of sample size to strata. One method of allocation is called proportional allocation, where by each stratum contributes to the sample a number that is proportional to its size in the population.

In this study there were 8 identical strata identified in each TVET colleges to be sampled and the respective population sizes of the strata are shown in Table 1. Moreover the researcher demonstrates the procedure used to identify the proportional 10% sample student respondents from each stratum following formula adopted from Wiesma (1995) and the detail description is shown in Appendix 8.

As seen from the Appendix 8 calculation, after the researcher determines the 10% members of each stratum the next task was to select individual cases from each stratum. According to Wiesma (1995) stratified sampling is used to allocate the total number of sample cases to be selected from the strata but it doesn't specify the member that is to be included in the sample. Thus in order to answer the question of how should members is selected from each stratum? The researcher determined the members from each stratum using lottery random sampling techniques. This method also used when the population was small. The maximum population that was found in sample schools was 64, which was manageable to use this method.

The researcher gave serial number to the corresponding names of the members of the population i.e. for example each individual student from "Entoto TVET College" was represented by a number. Thus the researcher

was prepared equal size, shape, white color pieces of paper, on which the numbers were written. After that each pieces of paper, were rolled and thoroughly mixed up and then the researcher pick out the pieces one by one, until the 10% i.e. 128 population of sample obtained from all colleges as shown in table 1 below.

Table 1: Total Sample Respondents

	Sample TVET Colleges List	Students Population								Total Sample Students	Business Teachers Population Total Sample Teachers			
		10+1				10+2								
		Regular		Extension		Regular		Extension						
		M	F	M	F	M	F	M	F		M	F	Total	Dep. Heads
1	Entoto TVET Collage	-	60	-	54	-	40	-	39	193	2	1	3	1
	~ 10%	-	6	-	5	-	4	-	4	19				
2	Misrake TVET College	-	64	-	28	-	35	-	27	154	-	3	3	1
	~ 10%	-	6	-	3	-	3	-	3	15				
3	Nefasilk TVET College	-	42	-	35	-	45	-	28	150	2	2	4	1
	~ 10%	-	4	-	3	-	4	-	3	14				
4	Wingate TVET College	-	40	-	75	-	40	-	40	195	3	1	4	1
	~ 10%	-	4	-	7	-	4	-	4	19				
5	Adams University College	-	35	-	27	-	40	-	30	132	4	1	5	1
	~ 10%	-	3	-	3	-	4	-	3	13				
6	Unity University College	-	30	-	45	-	23	-	38	136	3	-	3	1
	~ 10%	-	3	-	4	-	2	-	4	13				
7	Life lion TVET College	-	15	-	25	-	30	-	40	110	1	1	2	*
	~ 10%	-	2	-	2	-	3	-	4	11				
8	CPU TVET College	-	40	-	30	-	23	-	35	128	2	1	3	1
	~ 10%	-	4	-	3	-	2	-	3	12				
9	New Abyssinia TVET College	-	26	-	-	-	27	-	22	75	2	-	2	*
	~ 10%	-	3	-	-	-	3	-	2	8				
10	Softnet TVET College	-	-	-	-	-	14	-	21	35	1	-	1	*
	~ 10%	-	-	-	-	-	2	-	2	4				
	Total 100%	-	352	-	319	-	317	-	320	1308	20	10	30	7
	Total 10%	-	35	-	30	-	30	-	32	128				

NB: * TVET colleges working without department Heads

One governmental and one private organization workers as secretaries were incorporated using, purposive sampling technique. This was done because: to incorporate those secretaries, who were graduates of the current TVET system. Since the researcher selects the organization, on the basis of high

rate of recommendation that was obtained from respondent Business Education Department Heads 3 secretaries from Ministry of Trade and Industry as well as 3 secretaries from Softnet PLC were included in the study.

Thus, the total number of respondents to the study was 171 i.e. 128 Students, 30 Business Education Teachers, 7 Business Department Heads and 6 Secretary Workers.

3.3 Data Collection Instruments

3.3.1 Questionnaires

In order to gather first hand information pertaining to the subject, questionnaire, interview and document Analysis were used.

As stated by Best and Kahn (2003:300), a questionnaire is used in educational research to obtain information about certain conditions and practices, and to inquire in to opinions and attitudes of individual or groups. In addition to this, a questionnaire requires less time, less expensive and permits the collection of data from a much larger sample as compared to other data gathering instruments.

Based on the above idea the researcher has used the instrument for the purpose of gathering raw data from two groups of respondents, namely Secretarial students and Business Education Teachers .The questionnaire was consisted of two parts: Personal background questions and to research related questions.

Both the closed and open-ended structures questions were originally prepared and was submitted to researcher adviser. On the basis of feedback received from both researcher advisor and pilot test result, some amendments were made on questionnaires by restating, omitting and inserting words to detect ambiguous and unclear statements. With the

exception of the modification, all the questions in the questionnaire were found to be useful for the purpose intended. Then, the questionnaires were distributed with in three weeks time to the whole sample respondents with the researcher physical presence. To maximize the quality of responses and rate of return, the researcher was clarified the objective and purpose of the study verbally. Students' questionnaire was translated in to Amharic with the assistance of language experts for easier communication. Due to the physical presence of the researcher and close follow-up made in distributing and collecting the questionnaires, 149 (94 percent) of them were filled in and returned to the researcher safely.

3.3.2 Interview

The other important primary source of data in descriptive survey is interview. Wiesma (1995:72) indicates that interview is a major means by which a researcher finds out what is in someone else's mind .It permit researcher to enter in to their participants' perspective. He also contends that interview is conducted when researchers cannot themselves observe behaviors, feelings, or how people interpret the world around them. Alternatively, it is also conducted when researchers are interested in past events that are impossible to replicate. In general, as Best and Kahn (1999:18) write, interview is used to gather information regarding individuals experience and knowledge, their opinions, beliefs and feelings, and demography data. In addition to this the main purpose of the interview was to obtain data or information not revealed by one or another instrument and to crosscheck supplement and triangulate the information gathered using quantitative data collation sources.

In the course of this study, the researcher conducted interviews with my research participants in order to understand their perspectives, feelings, experiences and knowledge regarding typing/Keyboarding skill. In this regard two types of semi-structured interviews were prepared in English and

commented by the researcher's adviser. After the necessary amendments the interview was conducted in Amharic with 7 Business Education Department heads and 6 office secretaries.

All the interviews were conducted in Amharic language in a conventional style of everyday interactions and through a formal interviewing style, while conducting the interview I carefully tape-recorded the respondents idea and narrations of the issues raised was finally transcribed in order to use them during the analysis

3.3.3 Document Analysis

Gall, Borg and Gall (1996.328) described that questionnaire and interview methods relay one self-report by the respondents and some times information bias may be created as to them, therefore document analysis being studied and this may fill this gap of information if used properly. Hence, on the bases of such facts the researcher used document analysis method.

Document analysis also serves as a useful instrument for yielding information that is helpful in evaluating or exploring social or educational practice .It is a major means through which qualitative data from records, reports, printed forms, books, periodicals, bulletins and catalogues, syllabi, picture, etc can be generated (Best and Kahn, 1993:192).

In this study, I made document analysis on the curriculum guide and the training modules of 10+1 and 10+2 secretary students and basically the researcher made the analysis to overview the instruction in TVET curriculum to cross check the data gathered from both the questionnaire and interview respondents.

3.4 Data Collection Procedures

The following procedures were taken in to consideration to deal with the issues of typing/Keyboarding education in sample schools.

- Relevant literature were assessed to get acquaintance with issue under consideration
- Statistical data from the sources indicated were secured and analyzed
- Before administrating the questionnaire pilot study was carried out in "Tegebared" TVET College, which was finally excluded from the study. There was no major change in the instruments except making some correction and improvements in language and sequence of very few questions beyond comment given by advisor.
- After improving the instruments administrations of the instruments were followed i.e. questionnaire responses were tallied, tabulated and eventually analysis of data collected was made using Microsoft software called MS EXCEL.
- Totally, 158 copies of questionnaires (128 for students and 30 for teachers) were distributed to respondents. Out of which 149 (94 percent) of the copies were filled and returned. Out of 128 questionnaires distributed to students' respondents it was only 119 (93 percent) questionnaires were filled and returned while the remaining 9 (7 percent) were not properly filled. As a result, they were excluded from the analysis, while all the 30 business teachers filled the questionnaires properly and returned safely. Interviews were also conducted with department heads and secretaries who are currently working in sample organization.

3.5 Ethical Issues

As far as ethical issues concerned, all possible considerations were made to minimize if not possible to eliminate the problem totally. For instance, Frankfort-Nachmias and Nachmias (1996) and Mason (1996) described that full attention should be given for ethical issues that revolved around the topics of informed permission, right to privacy, protection from hurt etc. should get and emphasis by researchers while conducting the research.

- Before starting investigation, the researcher secured officials permission from the college authorities per the letter written from the researcher department.
- The researcher started my data collection activities particular to interview questions, after the researcher contractually agreed and reached consensus with my respective research participants and this was help the researcher to conduct the conversation in a friendly, relaxed and pleasant way.
- While conducting the interview, the researcher briefly explained the purpose of the interview and respondents were asked whether they have any question or concerns.
- During the tape recording activity the participant was asked permission. After reaching agreement they were strongly informed as the researcher used the data obtained only for research purposes with out altering respondents recorded idea.
- During the writing of the research result, the researcher used only pseudonyms to identify the participants.

3.6 Data Analysis Method

The following procedures and statistical tools were used in the data analysis process.

- Organization and quantification of the whole data based on the three groups of respondents were made.
- Percentage was used to questions demanding quantitative measurements.
- Data collected through interview and documents were used to support the data secured through questionnaire.

CHAPTER FOUR

Presentation, Analysis and Interpretation of Data

This chapter attempts to present the analysis and interpretation of data gathered from different sources to answer the basic questions raised in the study. The chapter consists of two parts. The first part consists of the analysis of the population of the research. The second part unveils the analysis and description of the general practice and major challenges of typing instruction in TVET curriculum. The data obtained through questionnaires were presented mostly using tables. Then the numbers were computed in terms of percentage.

4.1 Characteristics of the Respondents

The population of the study was divided into three main groups. The first group was those who are learning under the curriculum i.e. 10+1 and 10+2 secretary students. The second group was Business Education Teachers and Department Heads that are active participants in practicing the curriculum. Secretaries were the third group of respondents so that the effect and relevance of the curriculum would be checked and evaluated in their real work life.

The first and second group respondents (students and teachers) were asked to respond about the personal characteristics or bio-data of themselves through questionnaires. Table 2 below presents the summarized results.

Table 2: Personal Characteristics of the Respondents

	Item	Students (N =119)		Teachers (N= 30)		Total (N=149)	
1	*Sex*	No	%	No	%	No	%
	Male	–	–	20	67	20	13
	Female	119	100	10	33	129	87
	Total	**119**	**100**	**30**	**100**	**149**	**100**
2	*Age Group*						
	15-20	47	39	–	-	47	32
	21-30	38	32	3	23	41	28
	30 and above	34	29	27	77	61	40
	Total	**119**	**100**	**30**	**100**	**149**	**100**
3	*Years of experience*						
	1-5	–	–	4	14	4	14
	6-15	–	–	23	76	23	76
	16 and above	–	–	3	10	3	10
	Total	–	–	**30**	**100**	**30**	**100**

As table 2 depicts, all 119 (100 percent) students were females. It was found in different literatures that secretarial science as a profession was associated neither to men nor women .It was "sex-neutral" and as such was not only open both to men and women but also not automatically closed to women, as were so many other occupations. In deed, what the experience of USA showed that, the job of typist has always dominated by women (Donald, 1983), which has been common since the 1880's when typewriters were beginning to appear in the workplace. However, as discussed in the review literature of this study in USA, the job of typist was reported as an employment that many men did not want to enter due to the low wages attached to it.

Moreover, the typewriter has become a new specialty, which for the first time, allowed a woman to earn a living in an office. In USA almost all professional "typewriters" were females (west, 1983). Typing was one of the major contributor to female to come out from kitchen to office as a result most men are not interested to learn this skill and enter to secretarial department out of the wrong perception they developed that the skill is seen as a skill for women.

In closing, the typewriter alone was not responsible for bringing women out of the home. What the machine did was establishing a rate that allowed further opportunities to grow as one of a number of technological, social, and economic forces present in the late19th century. There was also a draw back to the rise of the typist. Many women began to be stereotyped as only to carry out this level of work and had to struggle to improve their position (west, 1983).

When we look at the second respondents, of the total 30 teachers 20 (67 percent) were males and 10 (33 percent) were females in which case the proportion of females as compared to males is very low. This reveals that, less participation of females in teaching still call for an effort to increase women involvement in higher education for teaching activities. The education and training policy (MOE, 1994:30) states that female participation in higher education will be democratic, professional coordinated, efficient and effective and will encourage the participation of women. Despite such provision, however, the implementation seems not strong as expected unless confirmed based on a research on the area.

With regard to age distribution, as shown in table 2 item number 2, 39 percent of students are found in the age group of 15-20. The remaining students and teachers (38 percent, 34 percent student and 32 percent and 77 percent teacher) were found in the age group of 21-29 and 30 and above

respectively. This implies that all the collected data were gathered from matured respondents, which is also very important for the reliability of the study result.

Item 3 of Table 2 shows the work experience of teacher respondents and the 76% of the teachers have served as long as 6 to 15 years. Such long years of service would assist the researcher to collect relatively reliable and relevant information, which would be a valuable input to the study. In addition, long years of service of teaching, particularly of typing/Keyboarding would help the researcher collect expertise information. On top of this, little number of respondent fall below 1-5 and above 16 years of experience. This enabled the researcher to gather information from teachers of all levels.

4.2 The Practices of Typing/Keyboarding Education in TVET Curriculum.

In this second part of the chapter an attempt was made to deal with the presentation and analysis of the practice of typing skill in middle level TVET curriculum. In this part, the data were analyzed based on the TVET curriculum guide document, and the responses obtained from the respondent's (Students, Teachers, Department Heads, and Secretaries).

4.2.1 Views of Respondents regarding Typing Instruction Equipment

As shown in the attached curriculum guide Appendix 6, two machines were identified for training purposes i.e. manual typewriter and computer. However, Table 3 below shows the machines currently used in sample schools and its relevance for mastery of typing skills

Table 3: Views of Respondents to Keyboarding/ Typing Instruction Equipments.

No	Item	Respondents					
1	Currently being used instrument in schools?	Students (N =119)		Teachers (N= 30)		Total (N=149)	
		No	%	No	%	No	%
	Manual Typewriter	119	100	30	100	149	100
	Total	**119**	**100**	**30**	**100**	**149**	**100**
2	Relevant instrument to typing skill acquisition?						
	A) Manual Typewriter			18	60	18	60
	B) Computer			12	40	12	40
	Total			**30**	**100**	**30**	**100**
3	Do you believe that the skill of Manual Typewriter is relevant to future office work carrier?						
	A) Yes	95	80	27	90	122	82
	B) No	24	20	3	10	27	18
	Total	**119**	**100**	**30**	**100**	**149**	**100**
4	If your answer for question 3 is "yes" would you mention your reasons						
	B/c of the transferability of the skill to Modern technology	95	100	27	100	122	100
	B/c of the unique application of the machine in office	95	100	27	100	122	100
	B/c of the climate friendly nature of the Machine	95	100	27	100	122	100
	B/c of the accessibility of the machine in market	95	100	27	100	122	100
5	If your answer for question is 3 is "no" would you mention your reason?						
	Inapplicability of the machine in most offices	24	100	3	100	27	100
	Total	**119**	**100**	**30**	**100**	**149**	**100**

As can be seen from Table 3 items 1, among the different option given to both respondents, i.e. 100 percent of students and teachers confirm that the manual typewriter is the only machine currently used in schools' for typing/keyboarding instruction training. This confirms the view that the choice of best equipment for training should be left to the existing socioeconomic condition of the country (Nathan, 1986).

However, in connection with this, respondents to the interview complained that, when viewed from the current Addis Ababa socioeconomic situation, the usage of manual typewriter in TVET schools curriculum seems some how irrelevant. Because, they reported that as this machine currently used in office rarely to fill out forms and labels. Moreover 24(100%) students who respond as the skill of manual typewriter is irrelevant also substantiated this, from their practical problem faced during the two months of apparent ship period. I.e. all reported strongly that after they took mass typing/Keyboarding in school training on manual typewriters, just due to the absences of the machine in most Addis Ababa offices, students were forced to practice the skill on computers before they introduced to computer application software's. These situations also were created anxiety on the trainee while they work in the organizations.

In fact, the absences of the manual typewriters in modern offices were becoming familiar phenomena. Because as seen in the review of the literature many people in developed country, which are well known by the availability of modern offices, conclude that as the manual typewriter is giving way to electric typewriter or computer and used mainly by people without access to computer (Cochran-Smith, 1991). In support of this stand as shown in table 3 item 2, 12 (40 percent) of the teacher respondents, prefer computer as a relevant instrument for training. Because typing/Keyboarding instruction could be conducted with instructional software, which have fun and entertainments than manual typewriters.

On the other hand a majority, 18 (60 percent), of respondents prefer manual typewriter as the best instrument for the training purpose because as most department heads to the interview respond that teaching typing using computer software is not preferable in such a way that software's are lacking educational quality and it allows students only to a simple drill exercises that requires lots of repetition. But the goal of typing skill is more than that of

drilling skill. The reason for this different preference by the above respondents could be many but as discussed in the literature it is mainly attached to the imbalance application of these instruments in offices and schools. However, what the researcher understand here is that even though there is a difference application as well as purpose of typing equipments in office and in school, there is no a major difference on the application of the skill gained from these machines.

Regarding this, item 3 of the same table shows that 95 (80 percent) of student respondents and 27(100 percent) of teacher respondents believe that the skill gained from manual Typewriter will be relevant to future office work career. The reason for this was, as shown in item 4 of the same table in which all students 95 (80 percent) and all teachers 27(100 percent) chose transferability of the skill to modern technology, unique application of the machine in office and the climate friendly nature of the machine as reasons for manual typewriter relevance. This goes in line with Nathan (1986), which says that manual typewriter is more valuable and climate friendly machine that requires minimal maintenance for developing countries. As a result, they can play a crucial role for training purpose, particularly to developing countries, those who have shortage of electric and computer accessories.

In addition, as discussed in chapter two of this paper Zinsser (1983) also advised the same thing, i.e. the training in developed country to be strengthened in an information age by manual typewriter rather than waiting computers and electricity to come to rural areas of developing countries.

Contrary to the above notion, all the respondents 24 (100 percent) students and 3 (100 percent) teachers do not prefer manual typewriter as a training tool (table 3 item 5). Their main reason was the inapplicability of the machine in most government as well as non-governmental offices of Addis Ababa.

More over one respondent to the open end item thoroughly discussed his reason in two folds .One was in terms of cost i.e. as he reported the cost of one new manual typewriter ranges from 4500 Birr to 5000 Birr in 1999 E.C and in order to teach Amharic and English typing courses a school need to spent almost 10,000 Birr. Where as, when this cost compared to computer it decreases by half even with out calculating other numerous applications of computers than typing instruction. The second dimension was the mechanical nature of the Manual Typewriters. I.e. it needs care and maintenance, changing ribbons, loading paper, and so on while teaching, which mostly make the teacher busy and cause for "bad" teaching learning environment.

In general, when looked at it from the point of view of literature, it is possible to unify these two different ideas i.e. as discussed in chapter two of this paper, Zinsser (1994) asserted that there is no clear cut recommended machine for teaching typing instruction, because both machines can allow students to input data from the mind to paper and the diverse preferences we might seen above result from lack of awareness in the area.

4.2.2 Views of Respondents to Typing/Keyboarding Instruction in TVET Curriculum

The interviewed respondents' views to Keyboarding instruction in TVET curriculum were generally found to be not encouraging. As all of the respondents expressed, there is a misunderstanding that resulted from lack of awareness about the relevance of the skill among the stakeholders, that is, as the data obtained from interviewed respondents showed that, most people associate typing/Keyboarding skill as a skill necessary to women secretaries only.

In fact such kind of perception was one of the major phenomena in developed country before the year 1980's.Forinstance Davies (1974), wrote on his book called "Women Place at the Typewriter", in America work force typing was highly associated with girls, and he said that it will be difficult to give exact justification for this, because of various factors.

However to mention the major ones: the relatively low wages accepted by women compared with men, the education of women, the feminist arguments was identified and discussed in detail. However, it will become unreliable to answer in such small-scale study the question of why typing skills associate with women secretaries, which also supported and implemented only for secretarial students in the 21st century in Ethiopia.

Indeed, current literature confirms a view that stands almost in contrary to that of TVET typing instruction curriculum, i.e. according to Change (1995:2), typing /keyboarding will be the most widely used input skill by all people in communication with writing machines like computer and typewriter. The curriculum should also open opportunities for all students to master typing skill before students are assigned to work in different activities using writing machines like computers and typewriters. Therefore, the respondents' criticism to the curriculum was appropriate because as was seen in the literature, typing can no longer be considered only as a secretarial skill, because it is and will continue to be a basic communication skill needed by all individuals (Donald 1983).

In addition, as indicated and discussed in chapter two, the experience of USA and Europe also shows as typing skill is demanded by all people both men and women, and currently typing instruction is practiced in their elementary school curriculum assuming that the skill is crucial to all people (Sandberg-Diment, 1998).

Moreover, the results obtained from questionnaire respondents as seen below in table 4 also strengthen the view that keyboarding skill is not a skill needed only for secretaries.

Table 4: Views of Respondents to Keyboarding/Typing Skill Relevance

No	Item	Respondents					
		Students (N =119)		Teachers (N= 30)		Total (N=149)	
1	Do you believe that Keyboarding/typing skill is a basic skill only for secretaries?	No	%	No	%	No	%
	A) Yes, I believe	14	12	7	23.	21	14
	B) No, I don't believe	105	88	23	77	128	86
	Total	**119**	**100**	**30**	**100**	**149**	**100**
2	If your answer for question 1 is "yes" is that from?						
	Secretaries day to day work is mostly attached to data processing activities	14	100	7	100	21	100
3	If your answer for question 1 is "No" is that from?						
	The usage of computer by individuals become increasing	105	100	23	100	128	100
	Total	**119**	**100**	**30**	**30**	**149**	**100**

As table 4 shows, it was found that only 21 (14 percent) of the respondents supported typing instruction to be given only for secretaries. All respondents were asked to forward their reasons, as seen in item 2 of the same table only they choose one option. As all of the respondents reason out, typing/Keyboarding instruction must be given only for secretaries because they believe that secretaries day to day work in office is mostly attached to data input processing activities compared to other professionals in office. As a result, they support the TVET curriculum, which provides typing instruction at middle level for secretarial students only.

On the contrary, as can be seen from item 1 of table 4, majority of the respondents, 128 (86 percent) believe that typing/Keyboarding instruction should be offered for all people. Their summarized response to open-ended item revealed that in this information age the demand for data processing

skill by individuals has increased. The usage of computer in offices, Schools, and home is extremely increasing. That is many of us spend some time, approximately from one to six hour per day with computers for a variety of tasks and we need this skill for data processing activities. But, in line with this there is no curriculum in our country which allows all students to have a mastery over such important skill and this is why the following interviewed respondent's views were found to be against to the TVET curriculum.

Interviewed Business Education Department Head Ato Debeb expresses his idea as follow:

> I thought typewriting or Keyboarding should be taught only for college secretaries as what currently TVET curriculum offered. But now, I think keyboarding should be taught in the high school curriculum for all students because students are learning computers next to this level and start to do a large amount of writing on the computer. And they should be taught proper keyboarding early at grade 9 so that typed work may be done more efficiently throughout their personal as well as academic lives.(April,1 2008.)

> Another respondent, Business Education Department Head Ato Temesgen also recommends the skill of typing to be integrated across the high school/middle level curriculum and applied whenever students are required to use or have access to the computer/typewriter. Because the skill is to be used in all subjects' areas, it is recommended that the time required to teach typing be taken proportionally from all areas of study. (April, 2 2008.)

A secretary in sample organization W/t Almaze also said that, as there is a difference in the purpose/goal of teaching typing skill in school. Formerly since the skill is identified as one major occupation for secretaries it was given only to students who are going to be secretary

professional in office. However today I personally looking different purpose of this skill to all students and students should be taught typing with the applications relevant to their home/school use such as to write personal letters, term paper, essays, etc. (April, 4 2008.)

In support of this, the literature as discussed in chapter two of this thesis substantiates that in developed countries typing skill training is given for all people. The main reason is the fact that computers permeate nearly every aspect of their daily life- they are in their homes, schools and work place, and the skill of typing /keyboarding is the primary means through which they operate this machine for a variety of tasks, especially word processing.

4.2.3 Views of the Respondents to Number of Courses and Allotted Time

According to the curriculum guide, the module for typing instruction is entirely designed to secretary students who are found at the middle (10+1 and 10+2) level. At this level, students are expected to learn three typing courses with a total of 438 hours, at 10+1 level and one course with a total of 205 hours at10 + 2 level, which also comprises 31 percent and 14 percent respectively of the total each year in school training hour.

In order to see their reaction to the number of courses and time allotted in the curriculum, questionnaire and interviews were prepared and administered. However, among the different options provided, all respondents selected only one option. That is both 119 (100 percent) and 30 (100 percent) of student and teacher respondent respectively believe that the number of courses and the time allotted for each course, is "More than enough" to master the typing/Keyboarding skill, when the response to the open end item summarized, This situation is currently makes students to hate the department, which also attributed by Ato Wendesen. That is, he noticed this condition as one major factor contributing for exodus of students from the department:

I taught typing for the past 11 years and in my years of experience; I observed the gradual down fall of student's number from the secretarial department year to year. The reason for this could be many and should be studied in detail. But in my assumption one of the major causes could be the mass typing training given in TVET curriculum for many years. And I think this condition is seen as traditional way of teaching typing and it is affecting our student's interest to learn such an essential skill. As a result unless some solutions identified; I am sure there will be mass exodus of students from the department if this condition continued. (April, 4 2008.)

In addition respondents, who said the number of course with the allotted time is "more than enough" were further asked in open ended questions to identify a course they most prefer to phase out from the curriculum and most of them frequently responded that Production Typing and Intermediate Typing courses be excluded from the middle level TVET curriculum, because the application of this course in real life work found to be insignificant due to the fast growing demand of word processing software's. Jackson, (1989) also recommends this course to be delivered for specialization purposes at higher education level.

Regarding this issue, the interviewed secretaries working in office also confirmed that during their training, much of the time was spent on practicing speed and accuracy on manual typewriters in traditional way but after the completion of the program, when they go to work, as all reported, they apply the skill only for data entry purpose, which was mastered by the first typing course called keyboarding and they also recommended if possible the two courses production typing and intermediate typing to phase out from the curriculum.

However, Warwood (1985) made suggestions as far the question of "how much is the correct length and number of typing instruction is appropriate?" They forwarded that there were numerous researches conducted and identified but it was impossible to determine what was the absolute best number and length for typing instruction. Unless a feasibility study conducted guided by the learner age, suitable equipment and identified purpose.

4.2.4 Appropriate Level for Typing/Keyboarding instruction.

Table 5: Views of Respondents to Appropriate Level Typing/Keyboarding Instruction.

No	Item	Students (N =119)		Teachers (N= 30)		Total (N=149)	
1	When should Keyboarding be taught	**No**	**%**	**No**	**%**	**No**	**%**
	a) Elementary school level	-	-	-	-	-	-
	b) High school level	14	12	7	23	21	15
	c) Middle level school	105	88	23	77	128	85
	d) Higher Education level	-	-	-	-	-	-
	Total	**119**	**100**	**30**	**100**	**149**	**100**

Both teachers and students were asked to indicate when Keyboarding should be taught. Table 6 indicates that 14 (12 percent) of the students and 7(23 percent) of the teachers believe that high schools could be the best levels for typing/Keyboarding instruction, while the majority of respondents 128 (85 percent) support the middle level schools (both TVET and preparatory schools) as the appropriate level to teach typing/Keyboarding skills for students. Surprisingly, no respondent mentioned elementary school and higher education as the best place; in fact scholars identify higher education level is appropriate to give special or advanced-typing courses (Stephen,

1989). For example the case of Addis Ababa University College of commerce, but elementary school, which is strongly recommended and identified by many developed country researchers, as it is the most appropriate level to taught students typing Change (1995), Artwohl (1989), Stephen (1989), Goins, (1996).

For example, Stephen (1989) said that early elementary school students could best learn keyboarding skill, but the training instrument should be computer not typewriter because, at this stage researchers on the matter confirmed that students are not mature enough in their finger dexterity and eye head coordination to use typewriters (Me Entee, 1994:7).

According to the information secured through interviews from the department heads, even though some prefer the middle level could be the best place, most of the respondent's idea was coincided with the literature available. One respondent Ato Debasu told me the practical experience he had faced in the city of Addis Ababa:

> I have a 10 years old son, who is attending education at one of the private elementary schools in Addis Ababa. The school has a supplementary course called keyboarding. My son currently is writing a paragraph with a speed of 20 WPM. I am very happy with this and I wish this supplementary course to be disseminated to all the elementary schools to be taught for all students. . (April, 1 2008.)

Another respondent Ato Ashenafi also reported the following:

> Good question. We know that students can learn how to type very well in high school and middle school level. So, these are both the appropriate levels .I would guess

> that some private elementary schools in Addis Ababa are trying to teach their students how to type. We really need to know what kind of success the private elementary schools have had. Best answer is to teach typing as soon as possible. However, we need to know if this is successful at governmental elementary level schools before recommending policy. In fact this would make a good study involving both governmental and private elementary schools. . (April, 2 2008.)

This shows that elementary school could also be the appropriate level for the acquisition of typing instruction' In summary to the questions, when is it best to teach typing- the researcher found that many ideas would be in agreement with most of the following suggestions:

Students should become aware of the typing processes as soon as they are asked to input information in to the writing machine (computer and typewriter). Student should learn the correct position of their fingers on the keys and the correct posture as they learn the computer. If this learning process takes place in elementary school, a keyboarding awareness should be taught. However, a formal keyboarding course should be delayed until students are matured in their finger dexterity and eye hand coordination, which is mostly possible at high school or middle level school (Entee, 1994:7).

4.2.5 Major Challenges of Keyboarding/Typing Instruction in TVET curriculum

Lastly, all respondents of the questionnaire to the open-end items as well as interview were asked to identify the major challenges of keyboarding/typing instruction in TVET curriculum. Even though a number of challenges were identified, the major issues are summarized as follows.

Issues of Awareness

122 (82%) of the respondents described that there is lack of awareness among the community members as far as typing /keyboarding as an essential skill for the 21st century is concerned. Because, most of them recognize that, the necessity to keyboarding is well driven by the fact that computers permeate nearly every aspect of our daily lives- they are in our homes, schools, and workplace and there should be awareness creation to the community in line with the skill to keyboarding is the primary for a variety of tasks.

Issues of Access

The second and most important challenge identified by respondents was access to writing machines. As majority respondents 122 (82%) confirm that many of us considered the computer as a luxurious property that should sit behind the "Boss's" office without any function. On the other hand, manual typewriters are seen as an outdated machine. But this condition brings big challenges to master the skill. As shown in previous sections, one can master the skill using any one of the machines. If there is access to this machine in public as well as private colleges, most students will have the opportunity to exercise or practice the skill for their own personal consumption. Teaching students to keyboard, and then failing to provide adequate reinforcement and application opportunities is somewhat like teaching students to read and then not providing books, opportunity, or motivation for them to read afterwards (Olinzock, 2006:7).

Issues of Attitude

The third challenge identified was the attitudes of school communities attached to typing skill, i.e. many of them consider it as a job of secretaries, which implies a job for women. But, the current situation is different in that many offices currently use computers by different experts. Professionals, both women and men, have increased. The current training, which is given in middle level, TVET will not be enough to meet the demand of trained professionals. The absence of a curriculum that allows all students to participate is identified as one major cause for the challenges. As most respondents say all students of this time are in need of typing skill in one way or another.

Issues of Instructors

The fourth challenge identified was lack of teachers. As all Business Education Department Heads responded to the interview, it was the Addis Ababa University, which was one of the single suppliers of Business Education Teachers. However, recently due to the introduction of computer to the Business Education Department, the university ceased producing those teachers who were teaching manual typewriters. This brings challenge to TVET institutions and to those who are teaching typing instruction using manual typewriters as per the recommendation of the TVET curriculum.

In general as said before currently it seems from these and other different challenges and problems seen in different components of the general TVET program, the Ministry of Education was in the process of revising the whole TVET curriculum based on the newly identified occupational standards, However, as the document analysis revealed that, concerning typing instruction the revised document doesn't hold the current slogan of typing instruction rather the draft document was simply prepared by reducing the two years traditional typing courses to one year for secretaries (Appendix 7) and it will come in to effect in 2008/9 which implies nothing to the major ideological change that discussed and identified in this study.

CHAPTER FIVE

Summary, Conclusions and Recommendations

In this chapter of the paper, three different contents are presented. First, the summery of the major findings was made. Following that the conclusions the researcher has reached were stated. Finally, recommendations that can contribute in suggesting some means of improving the existing situation to a better one were forwarded.

5.1 Summary

The study was aimed at surveying the practice and major challenges of typing education at the Middle level TVET in Addis Ababa. To achieve the stated purpose, the researcher identifies basic research questions, which served as guides in revealing the specific problems that needs to be addressed in the study.

As per the design of the methodology and instrument used, the data collected were analyzed using percentages for quantitative and detail description for qualitative results. Consequently, the data holds major findings that described briefly here under:

- Typing is identified as a skill important only for secretarial students in the curriculum of TVET. To accomplish this goal, the curriculum designed and implemented with four typing courses I.e. Keyboarding, Principles of typing, Intermediate typing (at 10+1 level) and Production typing offered (at 10+2 level). From the total of 753 hours in school training given per year 60 percent and 30 percent of the time allotted to typing course for secretarial students. However, as the result of this study reveled that majority of the respondents 122 (82%) view to all

this input were not found encouraging and almost all 149 respondents identified the curriculum as irrelevant in line with its instructional materials, and applications;

- All 119-sample school students were female students and this was found to be from the wrong perception stakeholders' having in that typing skill is a skill relevant only for secretaries and secretarial professions to women. This has been reflected in the curriculum as well;
- The result of this study also showed that due to the proliferation of computer in their daily life, majority 128 (86%) of the respondents have a strong awareness contrary to the curriculum. That is, they are aware that typing skill is a crucial skill needed by all people;
- The courses given in the curriculum found to be more than enough in respect to their number and allotted time. All secretarial professionals confirmed that except keyboarding skill, all typing skills were almost found to be inapplicable, irrelevant to their current office work;
- The curriculum was blamed as it has traditional nature because all schools are using the single instructional equipment i.e. Manual typewriter but computer currently replaces its nonappearance from the most offices environment of Addis Ababa.
- Even though most department heads and teachers was found to be hampered by the traditional nature of TVET typing instruction majority of them 18 (60%) prefer Manual typewriters as the best machine for the training purpose. However, as found from the literature they also were not in a strong position to recommend the machine to elementary school students;
- All the participants were found in supporting the idea of "Typing/Keyboarding skill for all" and majority128 (86%) of the respondent identify Middle school level as the appropriate level for such training;

- The study also identified four major challenges of the current Typing/Keyboarding instruction in schools:

  - Lack of awareness from the parts of stakeholders on the issues of Typing/Keyboarding skill for all;
  - Lack of access to the training equipment;
  - Attitudinal problems to the secretarial profession and to women;
  - Lack of trainer, particularly to manual typewriter;

5.2 Conclusions

The main points of this study were to assess the practice and major challenges of Keyboarding Education in TVET colleges to prioritize keyboarding skill for all students and to see the clear picture of the practice in the curriculum. The study relied on related literature and then discussed the study design in detail including the setting, participants, procedures and analysis. Overall, the study incorporated many ideas from Varity of respondents. Based on the analysis done and the findings obtained the following conclusions were drawn by the researcher.

- Keyboarding/Typing skill is still considered as a skill needed only for women secretaries. This is due to from the wrong perception among people (stakeholders).
- Students other than secretaries currently do not receive formalized typing/Keyboarding instruction. As a result, the current practice reveals that students are suffering from the consequences, because Typing/Keyboarding instruction in TVET curriculum is given traditionally and it fails to recognize this very vital need.
- Keyboarding/Typing is, and will continue for some time to be, the most widely used input device in communicating with computer. Therefore, keyboarding can no longer be considered a secretarial skill. It is a basic communication skill needed by all individuals.

- ❖ Students could be trained to typing/keyboarding using typewriter or computer before they ever use the computer for other advanced applications.
- ❖ There is no a clear-cut recommended best instructional tools for keyboarding instruction. As result, based on the socio-economic conditions of the country schools could use Manual typewriter or computer to train keyboarding skill for all students.
- ❖ The best we can do for our students is giving them proper typing/keyboarding instruction before they assigned to advanced computer applications. This could be, in our case, before they leave middle level school (TVET level and preparatory level) to enter in to higher education.
- ❖ Keyboarding/Typing is and has always been a sophisticated technology: skill is required to learn, to read, and to write in today's information age.
- ❖ Teaching all students how to type/Keyboard will be appropriate and unquestionable because with out this skill participation in global communication will be some how difficult.
- ❖ The learning from these studies will prove invaluable for educators, regional administrator sand policy makers in key decisions around the future of keyboarding in the curriculum for all students.

5.3 Recommendations

After reviewing the findings and conclusions, here is a list of recommendation.

- Set up a working group from business education experts and ministry of education on awareness creation program in order to change the image of keyboarding skill relevance to all students. For example, experts on the area has to start to promote and communicate to pupils, parents and senior managers, the contribution which

keyboarding skill will making students active participant in global communications.

- Set up a working group from business education experts and ministry of education to check possibilities how all students could be given accesses to training tools in public as well as private institutions.
- The TVET institutions have to see themselves and have to be seen as *service providers* for the organizations and therefore have to work demand and output-oriented.
- Business Education experts and Curriculum Experts should conduct a study at national level, which will, imply directly for curricula revision or restructuring typing/Keyboarding education in the curriculum for all students.

References

Adler, M. (1973). **The Writing Machine: A History Of The Typewriter.** Johns Hopkins University Press.

Anderson, T. (1983). Traditional Method Versus Computer Aided Instruction In Teaching Keyboarding Skills To Elementary School - Age Children. Unpublished Doctoral Dissertation, University Of Nebraska, Lincoln.

Artwohi, M.B. (1989). **What Research Says About Keyboarding Skills And Computer Anxiety?** ERIC Document # ED 312 444.

Best, John and Kahn, Jamu (1993). **Research In Education.** (7th.ed.). New Delhi: Prentice-Hall Of India Private Limited

Book, W, F., (1908.) **The Psychology of Skill, with Special Reference to Its Acquisition in Typewriting.** University of Montana. Available at: http://books.google.com/books?vid=OCLC03969917&id=XakCAAAAMAAJ&pg=PA9&lpg=PA9&dq=typewriting#PPP6,M1

Change, J.W. (1995). **Control Through Communication: The Rise of System in American Management.** Baltimore, Md.: Johns Hopkins University Press.

Cochran-Smith, K. (1991). **The Typewriter And The Men Who Made It.** Urbana University Of Illinois Press.

Conard, D. (1992,June). **Teaching Keyboarding To Elementary School Students.** National Association Of Laboratory School Journal.

Davies, M.K. (1974, July). **Women Place At The Typewriter:** The Feminization Of Cleaxical Labour Force, Ravreel America.18 (4), 1-16

Dolch, E.W., Bloomster, N.K (1988 November). **Teaching Keyboarding to elementary school students.** The Elementary School Journal. 38 (3), 201-205.

Donald, G. (1983). **Writing: Teachers-And Children At Work.** 4th.ed. New York: Teachers College Press

Frankfort-Nachmias, C and Nachmias, D. (1996). **Research Method in social science 5th**.ed. New York: St. Marin's Press

Fry, E. (1994). **Computer Keyboarding For Children's in language arts.** NY: Teachers College Press, 1-14

Gall, M.D., Borg, W.R., & Gall, J.P (1996). **Educational Research: An Introduction** (6th. ed.). USA: Long Man Publishing Company.

Goins, M. (1996). **A Business And Technical History.** Oxford: Clarendon Press.

Hubert, Z. (1989). **The Writing Machine: A History Of The Typewriter,** 4th.ed. London: Allen & Unwin Press.

Jackson, L. (1989). **Typewriting Instruction As And Aid To The Learning Of English As A Foreign Language.** Washington, DC: American Educational Association

Kercher, P. (1985). **Psychology Today: The Typist's Touch.** Washington, Dc: America Psychological Association.

Mason, J. (1996). **Qualitative Researching.** London: SAGE Publication

Maxam, S.D. (2002) **Keyboarding, Word Processing And Other Input Skills.** National Business Education Association Yearbook.

Mc Entee, A. (1994). **Keys To Keyboarding.**2nd.ed. New York: Mc Graw-Hill.

Ministry Of Education. (1994). **Education And Training Policy.** Addis Ababa. MOE.

_____ (2002). The Education And Training Policy And Its Implementation. (Unpublished), Addis Ababa.

_____(2002b). **የትምህርት ስልጠናና አተገባበሩ.** Addis Ababa, MOE.

_____2003. **Middle Level Training Program.** Year One And Year Two Curriculum Guide Addis Ababa, ICDR.

Nathan, D. (1986). **Understanding The Economics Of QWERTY.** Oxford: Basil Black Well press.

Nathan, K. (1986,November13)"How Can We Best Implement Elementary School Typing Courses? " **Business Education World**, 46, (3), 45-78.

Olinzock, A. (2006). **The Learning and Teaching of Reading and Writing.** Wiley Publishers, N.D available from Http://WWW.Wiley.Com

Russin, W. (1995). **The Typewriter: Its Growth And Uses.** Washington, Dc: American Educational Association

Sandberg-Diment, Erik (1998 January). **The Most Crucial Computing Skill.** The Future Trend. Retrieved November 25,2006,From http://WWW.usoe.k12.ut.us./ate/keyeboarding/article 3.html

Stark, R et.al. (2000). **The Impact of Information Technology Initiatives.** Inter Change Series. The Scottish Executive Education Department.

Stephen, M, (1989 April). **The Fable of the Keys.** Journal of Law and Economics, 33, (1): 1-25.

ሰማያዊ ገፆች (2006) በኢትዮጵያ ቴክኒክና ሙያ ትምህርትና ስልጠና ማን ምንድን ነው. Addis Ababa, ecbp.

UNESCO (2000). **Innovation Methods Of Technical and Vocational Education.** Report of UNESCO International Symposium, Hamburg. http://WWW. unpsuda unescorg.Html

Warwood, L. (1985). **Data processing and technological change: The post office savings bank, Technology and Culture.** Oxford: Basil Black Well press. 39,1-32.

West, K. (1983). **Teaching Keyboarding Skills to Elementary School Students in Supervised and Unsupervised-Environments.** Washington, DC: America Psychological Association.

White, L. (1989). **Teaching Keyboarding: The first step in making the computer an effective writing tool.** New York: Warner Books.

Wiesma,W (1995).**Research Methods in Education: An Intoduction.**6th . Boston: allyn & Bacon, Inc.

Wood, B., & Freeman, F. (1932). **An Experimental Study of the Educational Influence of the Typewriter in The Elementary School Classroom.** New York: Macmillan.

World Bank (1990). Vocational Education and Training in Developing Countries. Policies for Flexibility, Efficiency and Quality: Executives Summary. Washington, DC: World Bank.

Zinsser, G. (1994). The Effect of Typing Skill on Using a Word Processor-for Composition. Paper presented at the annual meeting of the American Educational Research Association, Washington, DC.

Appendences

Appendix 1 Questionnaire Prepared to Students

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF CURRICULUM AND
TEACHER PROFESSIONAL DEVELOPMENT STUDIES

The purpose of this questionnaire is to collect information about the practice and major challenges that face typing education in TVET Colleges. Be confident that the information gathered will be used only for the research purpose. Hence, you are kindly requested to provide the necessary information, which is very helpful to the quality of this research as well as to bring practical solutions to the problem. You are not expected to write your name on the questionnaire.

Thank you very much!

Direction: Please Mark With A Tick (√) For Your Response On The Space Provided And Write If The Question Requires A Written Response In The Space Provided.

Part I Personal Information

1. Name of the school _____
2. Sex Male ☐ Female ☐
3. Age _____

Part II Research Related Information

A) Questions Related To Typing Education Practice And Relevance.

4) Which of the following tools are currently being used for typing skill acquisition?

Manual typewriter ☐ Electrical typewriter ☐

Computer ☐

5) Do you believe that learning typing skill in manual typewriter is relevant to your future work carrier required in the market?

☐ Yes ☐ No

6) If your answer for question No. 5 is "Yes" is that from

a) Transferability of the skill to other technologies? ☐

b) The unique and important application of the machine in office? ☐

C) The all-around nature of the machine to climate and to organizations? ☐

d) The accessibility of the machine in the market ☐

e) If any other----------

---

7) If your answer for question No. 5 is "No" is that from

a) Inapplicability of the Machine in most offices ☐

b) Inaccessibility of the machine in the market ☐

c) If any other----------

---

8) Do you believe that typing skill is a basic skill only for secretaries?

Yes, I believe ☐ No, I don't believe ☐

9) If your answer for question 8 is "Yes" is that from?

a) Secretaries day-to-day work is mostly attached to data inputting processing activities.

a) The curriculum ordered to do so.

b) If any other----------

---

10) If your answer for question 8 is "No" is that from?

a) The usage of computer by individuals become increasing

b) With out this skill working in modern offices become impossible

c) If any other----------

---

11) How do you rate the number of typing courses with their allotted time currently given at your institutions for typing skill acquisition?

a) More than enough b) enough c) Undecided d) Small e) Very small

12) If your answer for question No 11 is "a" please write the course you prefer to be phased out from the curriculum? ----------

---

13) If your answer for questions No 12 is "c" please write the course you prefer to be added in to the curriculum? ----------

---

14) In your opinion, which level of the curriculum could be appropriate for teaching all students typing skills?

a) Elementary school level ☐
b) High school level ☐
c) Middle Level school ☐
d) Higher school level ☐

B) Questions Related to Major Challenges

15) Would you list down the major challenges you are facing while learning typing skill?

1_____

2_____

3_____

4_____

5_____

16) What do you think are the causes for these challenges to occur?

1_____

2_____

3_____

4_____

5_____

Appendix 2 Questionnaire Prepared to Business Education Teachers

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

DEPARTMENT OF CURRICULUM AND

TEACHER PROFESSIONAL DEVELOPMENT STUDIES

The aim of this questionnaire is to collect information about the practice and major challenges of typing education in TVET College. Be confidential that the information gathered will be used only for the research purpose. Hence, you are kindly requested to provide the necessary information, which is very helpful to the quality of the research as well as to bring practical solutions to the problem.

Thank you in advance for your cooperation

Direction: Please Mark With A Tick (√) For Your Response On The Space Provided And Write If The Question Requires A Written Response In The Space Provided.

Part I General Information

1. Name of the school _____

2. Sex Male ☐ Femal☐

3. Age_____

4. Years of service _____

Part II Research Related Information

B) Questions Related To Typing Education Practice And Relevance.

5) Which of the following tools are currently being used for typing skill acquisition?

Manual typewriter ☐ Electrical typewriter ☐

Computer ☐

6) Which of the following instruments you prefer more relevant to teach typing skill acquisition?

Manual typewriter ☐ Electrical typewriter ☐

Computer ☐ If any other----------

7) Do you believe that learning typing skill in manual typewriter is relevant to your future work carrier required in the market?

Yes ☐ No ☐

8) If your answer for question No. 7 is "yes" is that from

a) Transferability of the skill to other technologies? ☐

b) The unique and important application of the machine in office? ☐

C) The all-around nature of the machine to climate and to organizations? ☐

d) The accessibility of the machine in the market ☐

e) If any other----------

---

9) If your answer for question No. 7 is "No" is that from

a) Inapplicability of the Machine in most offices

b) Inaccessibility of the machine in the market

c) If any other----------

---

10) Do you believe that typing skill is a basic skill only for secretaries?

Yes, I believe ☐ No, I don't believe ☐

11) If your answer for question 10 is "Yes" is that from?

a) Secretaries day-to-day work is mostly attached to data inputting processing activities.

b) The curriculum ordered to do so.

c) If any other----------

---

12) If your answer for question "10" is "No" is that from?

a) The usage of computer by individuals become increasing

b) With out this skill working in modern offices become impossible

c) If any other----------

---

13) How do you rate the number of typing courses currently given at your institutions for typing skill acquisition?

a) More than enough b) enough c) Undecided d) Small e) Very small

14) If your answer for question No 13 is "a" please write the course you prefer to be phased out from the curriculum? ----------

---

---

15) If your answer for questions No 13 is "d" or "e" please write the course you prefer to be added in to the curriculum? ----------

---

---

16) In your opinion, which level of the curriculum could be appropriate for teaching all students typing skills?

a) Elementary school level ☐

b) High school level ☐

c) Middle Level school ☐

d) Higher school level ☐

B) Questions Related to Major Challenges

17) Would you list down the major challenges you are facing while learning typing skill?

1_____

2_____

3_____

4_____

5_____

18) What do you think are the causes for these challenges to occur?

1_____

2_____

3_____

4_____

5_____

Appendix 3 Amharic Questionnaire Prepared for Students

በአዲስ አበባ ዩኒቨርሲቲ የድህረ ምረቃ ፕሮግራም
ስነ/ ትምህርት ኮሌጅ የሰርዓተ ትምህርት እና የመምህራን ፕሮፌሽናል ዲቨሎፕመንት ጥናት ዲፓርትመንት

<u>በተማሪዎች የሚሞላ መጠይቅ</u>

የዚህ መጠይቅ ዋና ዓላማ በቴክኒክና ሙያ ትምህርት ማሠልጠኛ ኮሌጆች ውስጥ እየተሰጠ ያለውን የትየባ ትምህርት (Typing Education) ያለበትን ተጨባጭ ሁኔታ እና ያጋጠሙትን ችግሮች ለማሳየት መረጃ ማሰባሰብ ነው። ውድ ተማሪዎች የሚሰበሰበው መረጃ ለጥናት ጥቅም ብቻ የሚያገለግል በመሆኑ ትክክለኛና ጠቃሚ መረጃ በመስጠት የጥናቱ ዓላማ የተሣካ እንዲሆን ትብብርዎን እጠይቃለሁ።

አመሰግናለሁ።

<u>ትዕዛዝ</u> ፡- ከዚህ በታች ባሉት የሣጥን ምልክቶች ውስጥ የራይት ☐ ምልክት እንዲሁም በባዶ ቦታዎች ላይ አጠር ያለ መልስዎን ይጻፉ።

ክፍል አንድ፡ አጠቃላይ መረጃ

1. የኮሌጅ ሥም _____

2. ጸታ፡ ሴት ☐ ወንድ ☐

3. እድሜ _____

ክፍል ሁለት፡ ጥናት ነክ ጥያቄዎች

ሀ/ ከትየባ ትምህርት አስፈላጊነትና ካለበት ተጨባጭ ሁኔታ የቀረቡ ጥያቄዎች

4/ በሚማሩበት ኮሌጅ ውስጥ ለትየባ ትምህርት በማሠልጠኛ መሣሪያነት የሚያለግለው ከሚከተሉት ውስጥ የትኛው ነው?

ሀ/ በእጅ የሚሠራ የጽሕፈት መኪና ? ☐

ለ/ በኤሌክትሪክ የሚሠራ የጽሕፈት መኪና ? ☐

ሐ/ ኮምፒዩተር? ☐

5/ የትየባ ትምህርት በእጅ በሚሠራ የጽሕፈት መኪና መማርዎ ወደፊት በስራ ዓለም ላይ ተፈላጊ ያደርገኛል ብለው ያምናሉ?

ሀ/ አዎ ☐ ለ/ አላምንም ☐

6/ ለጥያቄ ቁጥር 5 መልስዎ "ሀ" ከሆነ በእጅ የሚሠራ የጽሕፈት መሣሪያ ያለው ጠንካራ አስተዋጽኦ ቢገልጹ ?

ሀ/ መሣሪያው መሠረታዊ ችሎታ ስለሚያስጨብጥና ሌሎችን ዘመናዊ መሣሪያዎችን ያለተጨማሪ ስልጠና ለትየባ ሥራ መጠቀም ስለሚያስችል? ☐

ለ/ መሣሪያው በቢሮ ውስጥ የራሱ የሆነ ልዩ ጥቅምና አገልግሎት ስላለው? ☐

ሐ/ መሣሪያው በተለያየ የአየር ፀባይና ድርጅቶች ውስጥ ማገልገል ስለሚችል? ☐

መ/ መሣሪያው እንደልብ በገበያ ላይ ስለሚመገኝ ? ☐

ሠ/ ሌላ ካለ ቢገልፁ ? _____

_____

7/ ለጥያቄ ቁጥር 5 መልስዎ "ለ" ከሆነ በእጅ የሚሠራ የጽሕፈት መሣሪያ ያለው ደካማ አስተዋጽኦ ቢገልጹ ?

ሀ/ የማሰልጠኛ መሣሪያዎች በእጅ የሚሠሩና አድካሚ በመሆናቸው? ☐

ለ/ የትየባ ሥራ ዝቅተኛ ግምት ስለሚሰጠው ? ☐

ሐ/ መሣሪያው በቢሮ ውስጥ ዝቅተኛ ግምትና አገልግሎት ስላለው? ☐

መ/ ሌላ ካለ ቢገልጹ? _____

8/ የትየባ ትምህርት አሁን ካለው የቴክኖሎጂ እድገት አኳያ አስፈላጊነቱ ለፀሃፊዎች ብቻ ነው ብለው ያምናሉ?

ሀ/ አዎ ለ/ አላምንም

9/ ለጥያቄ ቁጥር 8 መልስዎ " ሀ " ከሆነ ምክንያቱ?

ሀ/ የትየባ ሥራ የጸሃፊዎች መደበኛ ሥራ በመሆኑ? ☐

ለ/ ስርዓተ ትምህርቱ ለፀሃፊዎች ትምህርቱ በብዛት እንዲሰጥ በማድረጉ ነው? ☐

ሐ/ መረጃ ወደተለያዩ ቴክኖሎጂዎች የማስገባቱ ሥራ በአብዛኛው በፀሐፊዎች በመከናወኑነው? ☐

መ/ ሌላ ካለ ቢገልጹ?

_____

10) ለጥያቄ ቁጥር 8 መልስዎ " ለ " ከሆነ ምክንያቱ?

ሀ/ የትየባ ችሎታ ለሁሉም ሠው አስፈላጊ እየሆነ በመምጣቱ ነው? ☐

ለ/ ያለትየባ ችሎታ በቢሮ ውስጥም ሆነ በሌላ ቦታ መረጃ ወደ ተለያዩ ዘመናዊ መሣሪያዎች ማስገባት አስቸጋሪ እየሆነ በመምጣቱ ነው? ☐

ሐ/ እያንዳንዱ ግለሰብ ዘመናዊ መሣሪያዎችን (Computer) የመጠቀሙ ሁኔታ እየጨመረ በመምጣቱ ነው? ☐

መ/ ሌላ ካለ ቢገልጹ? _____

11/ ለትየባ ችሎታዋ በሥርዓተ ትምህርቱ የሚሠጡ የትምህርት አይነትና ብዛት የትየባ ችሎታን ከማስጨበጥ አኳያ እንዴት ይመዝኑታል?

ሀ/ ከበቂ በላይ ነው ለ/ በቂ ነው ሐ/ በቂ ነው አነስተኛ ነው ማለት አይቻልም

መ/ አነስተኛ ነው ሠ/ እጅግ በጣም አነስተኛ ነው

12/ ለጥያቄ ቁጥር11 መልስዎ "ሀ" ከሆነ ከሥርዓተ ትምህርቱ ውስጥ ሊቀነሱ ይገባል የሚሏቸውን የትምህርት ዓይነት ቢጠቅሱ?

_____ _____

_____ _____

13/ ለጥያቄ ቁጥር 11 መልስዎ " መ" ወይም "ሠ" ከሆነ በሥርዓተ ትምህርቱ ውስጥ ሊካተቱ ይገባል የሚሏቸውን የትምህርት ዓይነት ቢጠቅሱ?

_____ _____

_____ _____

14/ ከሚከተሉት ደረጃዎች ውስጥ የታይፕን ትምህርት ለሁሉም ተማሪዎች ለመስጠት አመቺ ይሆናል የሚሉት የትኛውን ነው?

1. አንደኛ ደረጃ ትምህርት
2. ሁለተኛ ደረጃ ትምህርት
3. የመካከለኛ ደረጃ ትምህርት
4. የከፍተኛ ደረጃ ትምህርት

ለ/ የትየባ ትምህርት አጠቃላይ ያሉበትን ችግሮችን ለመለየት የቀረቡ ጥያቄዎች

15/ በአጠቃላይ በትየባ ትምህርት በሚማሩበት ወቅት ያጋጠመዎትን ዋና ዋና ችግሮች ቢዘረዝሩ

_____

_____

_____

_____

_____

_____

_____

16/ ከላይ ለገለጹዋቸው ችግሮች ዋና ምክንያት ናቸው የሚሏቸውን ቢገልጹ?

_____

_____

_____

_____

_____

Appendix 4 Interview Questions to Business Education Department Heads

Semi-Structured Interview Questions for Business Education Department Heads

How do you see typing courses in the curriculum of TVET?

Do you believe that, teaching secretary students how to type in manual typewriter will make them competent in the market?

What are the major challenges currently observed in Business Education in general and secretarial studies in particular faced regarding typing course at all levels?

Do you know that typing skill is the most crucial skill needed worldwide?

What will be your response if the government introduces typing course to elementary school/High school curriculum?

What instrument would be appropriate for elementary/High school students?

Currently the government is in the process of changing typing courses to be delivered by computer for secretarial students.
What notion do you have regarding this matter?
Particular, to machine of typewriter & teachers of typewriting.

Appendix 5 Interview Questions for Office Secretaries

Semi-Structured Interview Questions For Secretaries in Work Place

Did the typing course you have taken in the college make you competent in the office work? How?

What do you recommend to the Ministry of Education regarding the curriculum of typing Education?

Are you currently using manual Typewriters in office? For what purposes are you using it?

What are the major activities you are performing while using typewriters?

Appendix 6 Selected Documents from TVET Curriculum Guide

JOB TITLE: Copy Typist
Course Title: Keyboarding

S/N	Contents	Time allotted
1	Introduction	160 hrs
2	Job Profile	
3	Course Title: English Key boarding	
4	Duty 1 Keyboard introducing and practicing	
5	Duty 2 Typing straight copies and filling in forms	
9	Job Evaluation A. Exam B. Project work C. Apprenticeship	
9	Resource organizations A. References B. List of Tools & Equipment C. Consumable Materials	

Title: Secretary Typist

Course Title: English and Amharic Production Typing

S/N	Contents	Time allotted
1	Introduction	205 hrs
2	Job profile	
3	Course title: English and Amharic Production Typing	
4	Duty 1 Typing business letters	
5	Duty 2 Preparing business forms	
6	Duty 3 Preparing tabular materials	
7	Duty 4 Preparing business reports	
8	Duty 5 Preparing meeting related documents	
9	Job Evaluation A. Exam B. Project work C. Apprenticeship	
9	Resource organizations A. References B. List of Tools & Equipment C. Consumable Materials	

Job Title: Typist

Course Title: Principles of Typing

S/N		Introduction	Time allotted
1		**Job Profile**	
2		**Course title:** Principles of English Typing Application	
3		**Duty 1** Typing sample and routine letters, memos, tables & Reports (English & Amharic)	166 hrs
4		**Duty 2** Handing office Telephone calls	
5		Job Evaluation A. Exam B .Project work C. Apprenticeship	
9		Resource organizations A. References B. List of Tools & Equipment C. Consumable Materials	

Job Title: Clerk Typist

Course Title: Intermediate Typing

S/N	Contents	Time allotted
1	**Introduction**	
2	**Job Profile**	
3	**Course title:** Typewriting and other office clerical activities	112 hrs
4	**Duty 1** Typing complex letters, memos, reports and tabular materials	
5	**Duty 2** Computing data and handling financial records	
6	**Introduction**	
7	**Job Profile**	
8	**Course title:** Typewriting and other office clerical activities	
9	Job Evaluation A. Exam B. Project work C .Apprenticeship	
9	Resource organizations A. References B. List of Tools & Equipment C. Consumable Materials	

List of Equipment

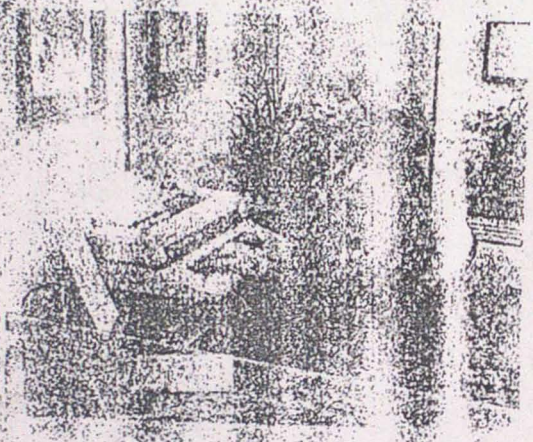
S.N.	Item with Specification	Unit	Quantity	Remark
1	English Typewriter: Olympia manual, medium carriage 46 cm.	PCS	50	
2	English Typewriter: Olympia manual, long carriage, 62cm.	PCS.	5	
3	English Typewriter: manual medium carriage, model 275	"	5	
4	Amharic Typewriter Olympia manual Typewriter, medium carriage, 46 cm.	Pcs	50	
5	Amharic Typewriter : Olympia manual Typewriter, large carriage, 62 cm.	Pcs	5	
6	Amharic Typewriter Model 275	Pcs	5	
7	Amharic Typewriter Olympia manual Typewriter, medium carriage, 46 cm.	Pcs	50	
8	Computer: Intel Pentium 4: Genuine Intel P4 1.7 GHz Orig. SVGA 32MB Video Memory, Full 256KB Level 2 Cache, 128 MB RAM Expandable to 2000MB(2GB) Two 32-bit PCI Slot & 1AMR Slot, Ultra DMA 100 support, PNP & Flash BIOS including security support features, 40GB Hard Drive, 52X-CD Rom Drive 32 Bit sound blaster compatible & stereo speakers, 3.5" Floppy Drive & Key Board & Mouse with Mouse Pad, 2 x USB Port 2 x serial port, 56 K Fax & Data Modem, 17" Digital color Monitor	PCS	25	
9	HP1200 Laser Jet Printer	PCS	5	
10	Back – Up Model: SVR – 1000 W, AC Automatic Voltage Regulator	"	5	
11	Diskette: 3.5" Floppy Diskette	Gross	3	
12	Typewriting tables, size 1.10m x 0.70 cm	PCS	50	
13	Students' typing chairs, normal iron foot	"	50	
14	Filing Cabinet with four drawers, suspension file holder, with locker, sheet metal(H132.5xL.62xW.47)	PCS	4	
15	Card Index Cabinet	PCS	4	
16	Demonstration Table, wooden, with one drawer, size 1.50m x 1.50m. height 1.10m.	PCS	1	
17	Overhead projector/DEsk topGEHA model 4000	PCS	2	
18	Instructor's Table, wooden, two side drawers with locker – Mosvold type	PCS	1	
19	Instructor's Chair, rolling with cushion and arm	PCS	1	
20	Telephone Equipment (full set),Nova model 3551	PCS	10	

List of Consumable Materials

S.N	Item	Unit	Quantity	Remark
1	Printer forms	PCS	25	
2	Large size drawing paper	PCS	25	
3	Printed forms	PCS	25	
4	Flipchart	PCS	25	
5	Requisition forms	PCS	25	
6	Envelopes (Sample)	PCS	25	
7	Model Letters	PCS	50	
8	Log Book	PCS	25	
9	Incoming mail statistics Summary form	PCS	25	
10	Incoming mail statistics (Redirecting form or card)	PCS	25	
11	Sample letters	PCS	25	
12	Sample records	PCS	25	
13	Note	PCS	25	
14	Sample Incoming and outgoing correspondence with' release' mark and 'file copy 'printing	Pcs	25	
15	Chart showing indexing & coding	Pcs	10	
16	Sample cross-reference	Pcs	25	
17	Sample file folders	Pcs	25	
18	Sample Requisition Card/file	Pcs	25	
19	Sample out guide & out folder	Pcs	25	
20	Sample carrier folder	Pcs	25	
21	Record retention & transfer policies	Pcs	25	
22	A4 paper	Pcs	25	
23	Sample memos	Pcs	25	
24	Follow-up file	pcs	50	
25	Sample payroll	pcs	25	

Ethiopian TVET-System

Model Curriculum



Administrative Secretary

Based on

Ethiopian Occupational Standard (EOS)

Prepared by: working group of experts from Regional TVET-Authorities

Facilitated by: Ministry of Education and ECBP / TVET-Reform Component

Nazareth, July 2007

Preface

The reformed Ethiopian TVET-System is an *outcome-based system*, meaning that it **uses the needs of the labour market and occupational requirements from the world of work as the benchmark and standard for TVET-Delivery**. The requirements from the world of work are analysed and specified – taking into account international benchmarking – as Ethiopian Occupational Standards (EOS).

In the reformed Ethiopian TVET-System, **Curricula and Curriculum Development plays an important role with regard to quality driven TVET-Delivery**. Curricula help to facilitate the learning process in a way, that learners acquire the set of occupational competencies (skills, knowledge and attitude) required at the working place and defined in the Ethiopian Occupational Standards (EOS). **Responsibility for Curricula and Curriculum Development** will be given to the **Regional TVET-Authorities and TVET-Providers.**

This curriculum has been developed by a group of experts from different Regional TVET-Authorities based on the Ethiopian Occupational Standard **"Administering Office and Secretarial Technology"** It has the character of a **model curriculum** and is an example on how to transform the occupational requirements as defined in the respective Ethiopian Occupational Standard in to an adequate curriculum.

The curriculum development process has been actively supported and facilitated by the **Ministry of Education – in line with one of its mandates to provide technical support to the regions** – and by the TVET-Reform Component of the Engineering Capacity Building Programme.

TVET-Programme Design

1.1. TVET-Programme Title: Administering Office and Secretarial Technology

1.2. TVET-Programme Description

The programme is designed in line with the Ethiopian Occupational Standard (EOS). Therefore, trainees participating and complete the programme successfully will be qualified as an Administering Office and Secretarial Technology with competencies elaborated in the respective EOS: Graduates of the programme will have the required qualification to work in the business sector in the field of Administering Office and Secretarial Technology. In the programme special emphasis in the given to systems and devices of Keyboarding skills, Word processing application, Reception, Manage office records and Procedures and Administering office activities . Graduates are therefore expected to process, manage, administer and record the office activities in accordance with the performance criteria described in the EOS.

The programme will be carried out as per the curriculum developed based on the EOS. The curriculum gives details on the expected outcome, programme content, learning strategy, evaluation and assessment as well as on the resource conditions of the programme.

1.3. TVET-Programme Learning Outcomes

Upon completion of this particular TVET programme "**Administering Office and Secretarial Technology**" the trainees shall be able to:

- Perform Keyboarding and word processing skills accurately
- Posses knowledge and skills required to communicate positively with customers
- design and develop business documents effectively
- manage office records in proper manner
- create and use simple spread sheets, manage database and design electronic presentation
- perform simple accounting activities efficiently
- manage secretarial procedures in an office

1.4. Duration of the TVET-Programme

The programme will have duration of **3251 (only for main and supportive modules)** training hours, which will be used for both theoretical teachings and practical exercises.

Note: Total duration of the TVET programme=4241 hours (including common modules)

Qualification Level and Certification

Based on the descriptors elaborated on the National Qualification Framework[1] the qualification of this specific TVET programme will be "Level Four"

1.5. Target Groups

No special target group is assigned for the programme. Any citizen who meet the entry requirements and capable of participating in the theoretical teachings and practical activities is entitled to take part in the programme.

1.6. Entry Requirements

To enter the programme, a candidate shall at least successfully complete 10th grade general education.

1.7. Concept and Mode of Delivery

This specific TVET-programme can be characterized as a formal programme on middle technical level. As long as the required learning / contact hours as specified in the curricula are retain, the training can be flexibly adapted according to the prevailing conditions and provisions as far as organization, venue and scheduling of the training in concerned. As far as feasible, preferred mode of delivery is co-operative training, meaning that TVET-institutions and companies co-operate with regard to implementation. Involvement of companies in TVET-delivery is highly recommended because it gives the learners exposure to the actual world of work and enable them to get hands-on experience. Organization of in-company training depends on the preferences and frame conditions of the respective companies. One of the options is organization of in-company training in block-form. This has already been practiced in the past (organizational attachment / apprenticeship training) and is still relevant.

[1] In the process of being defined and approved

1.8. TVET-Programme Structure

1.8.1 Modules / Subject Table

Modules / Subject Table				Logo of TVET Provider
TVET-Programme Title: Administering office and Secretarial technology				
	Modules	Total Duration Hrs	Theory Hrs.	Practical[2] Hrs.
A.	**MAIN MODULES**			
1	KEYBOARDING AND DOCUMENT PROCESSING	706	212	494
2	RECEPTION	350	105	245
3	OFFICE ADDMINSTRATION	760	228	532
4	RECORD MANAGEMENT	210	63	147
5	OFFICE AUTOMATION	310	93	217
6	ACCOUNTING FOR SECRETARIES	200	60	140
7	SECRETARIAL PRCEDURE AND OFFICE MANAGEMENT	290	87	203
	Sub-Total	**2826**	**848**	**1978**
B.	**SUPPORTIVE MODULES**			
1	BUSINESS LAW	75	40	35
2	BUSINESS COMMUNICATION	75	40	35
3	INTRODUCTION TO MANAGEMENT	75	40	35
4	HUMAN RELATION SKILL IN AN OFFICE	75	40	35
5	BUSINESS MATHS	75	30	45
6	BUSINESS ENGLISH FOR SECRETARIES	50	25	25
	Sub-Total	**425**	**215**	**210**
C.	**COMMON MODULES**	To be added		

[2] Including practical training done at the TVET-Institution and in the form of internships at companies; assignment of hours to be decided by TVET-Provider.

1.8.2 Sequencing Structure

Sequencing Structure	Logo of TVET Provider

TVET-Programme Title: Administering Office and Secretarial Technology

Code / Sequential Order	Modules		Total Duration Hrs.	Pre-requisite
	Module Title	Module Type		
1	KEYBOARDING AND DOCUMENT PROCESSING	Main module	706	
	BUSINESS MATH'S	Supportive module	75	
2	RECEPTION	Main module	350	KEYBOARDING AND WORD PROCESSING
	INTRODUCTION TO MANAGEMENT	Supportive module	75	
3	OFFICE ADDMINSTRATION	Main module	760	RECEPTION
4	RECORD MANAGEMENT	Main module	210	
	BUSINESS COMMUNICATION	Supportive module	75	
5	OFFICE AUTOMATION	Main module	310	OFFICE ADDMINSTRATION
	BUSINESS LAW	Supportive module	75	
6	ACCOUNTING FOR SECRETARIES	Main module	200	
	BUSINESS ENGLISH FOR SECRETARIES	Supportive module	50	
	HUMAN RELATION SKILL IN AN OFFICE	Supportive module	75	
7	SECRETARIAL PROCEDURE AND OFFICE MANAGEMENT	Main module	290	OFFICE ADDMINSTRATION
		Total Duration	3251	

1.9. Module-Unit Relationship Matrix

UNIT-MODULE Relationship MATRIX	
Module type by title and code	**Covered occupation specific Units of Competence by title and code**
Module 1 **Keyboarding and Document processing**	❖ Develop keyboard skill ❖ Produce word processed documents ❖ Design and develop text documents
Module 2 **Reception**	❖ Develop work priorities, organize and complete daily work activities/schedule ❖ Create secretary's relationship with customers /clients
Module 3 **Office administration**	❖ produce text from notes & audio transcription ❖ Use basic communication skills at work place ❖ produce business complex documents
Module 4 **Record management**	❖ Manage office records
Module 5 **Office Automation**	❖ create & use spread sheet ❖ create & use database ❖ create electronic presentations
Module 6 **Accounting for Secretaries**	❖ perform simple accounting activities
Module 7 **Secretarial procedures and office management**	❖ organize business travel ❖ organize & manage meetings ❖ plan & manage conferences

1.10 Assessment, Assessment Criteria and Assessment Scheduling

In-TVET Institution Assessment as well as management and scheduling of occupational testing are within the responsibility of TVET – Providers. In this regard, two types of assessment are to be carried out.

- **In-TVET Institution Assessment:** - it includes continuous assessment and final exams / assessment. The criteria to sit for this internal type of assessment will be inline with applicable rules and regulations of individual TVET-Providers. This type of assessment is often module-based and done at institution level by the respective trainer/teacher based on the information deliberated in each module and trainer's manual.

Appendix 8 Stratified Sampling Calculation

The following calculation is showing, how the researcher selected the 10 percent students respondents using a simple stratified sampling techniques. For easy understanding the researcher demonstrate one example for Entoto TVET college Sampled students.

Example: Entoto TVET College stratified in to eight strata (branches), which was grouped by sex, program and level.

Strata 1, 10+1, regular, Female students= 60

Strata 2, 10+1, Extension, students= 54

Strata 3, 10+2, regular, Female students= 40

Strata 4, 10+2, Extension, Female students= 39

Strata 5, 10+1, regular, Male students= 0

Strata 6, 10+1, Extension, Male students= 0

Strata 7, 10+2, regular, Male students= 0

Strata 8, 10+2, Extension, Male students= 0

Formula, $nk = (n/N)\,Nk$

Where, nk= the sample size for K^{th} strata

Nk= the population size of the K^{th} strata

N = the total population size

n = the total sample size

Strata 1, N1=60, N=1308, n=128

$n_1 = (n/N)\,N1$, (128/1308)* 60, =6

Strata 2, N2=54, N=1308, n=128

$n_2 = (n/N)\,N2$, (128/1308)*54, 5

Strata 3, N1=40, N=1308, n=128

= (n/N) N3, (128/1308)* 40, =4

Strata 4, N2=39, N=1308, n=128 n_3

$n_4 = (n/N)\,N4$, (128/1308)*39, ~ 4