

**AN ASSESSMENT OF MATERIALS AND SUPPLIES  
MANAGEMENT IN SELECTED GOVERNMENT TECHNICAL  
AND VOCATIONAL EDUCATION AND TRAINING COLLEGES  
IN ADDIS ABABA.**

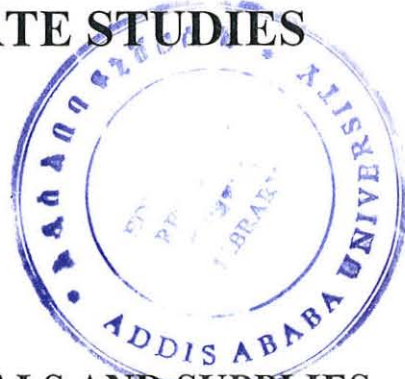
**A thesis Submitted to the School of Graduate Studies  
Addis Ababa University College of education and Behavioral  
Studies**

**In Partial Fulfillment of the Requirements for the degree of  
Master of Arts in Management of Vocational Education**

**BY  
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**July 2011  
Addis Ababa**

**ADDIS ABABA UNIVERSITY  
SCHOOL OF GRADUATE STUDIES**



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## Table of content

<b>Contents</b>	<b>Page</b>
Acknowledgments.....	i
Table of contents .....	ii
List of tables.....	iv
List of Appendices.....	vi
List of acronym .....	vii
Abstract .....	viii
<b>Chapter One</b>	
1. Research Background .....	1
1.1. Background of the problem .....	1
1.2 Statement of the Problem .....	5
1.3 Basic Questions of the Study .....	6
1.4 Objectives of the Study .....	6
1.4.1 The General Objective .....	6
1.4.2 Specific Objectives .....	7
1.5 Significance of the study.....	7
1.6 Delimitation of the Study.....	8
1.7 limitation of the study.....	9
1.8 Research Design .....	9
1.8.1 Sample and Sampling Techniques.....	10
1.8.1.1 Sampling Techniques .....	10
1.8.2 Population .....	10
1.8.3 Data Collection Tools.....	11
1.8.3 Sources of Data .....	11
1.8.4 Statistical Techniques for Data Analysis .....	12
1.9 Definition of Terms.....	12
1.10 Organization of the Study .....	13
<b>Chapter Two</b>	
Review of Related Literature.....	14
2. Introduction .....	14
2.1 Historical Background of Technical and Vocational Education and Training .....	14
2.2 What is Leadership? .....	15
2.3 Educational Resource Management.....	16
2.3.1 Management of Resources.....	16
2.4 Effective Management of Educational Resources.....	17

2.4.1 Resource Utilization .....	17
2.4.2 Resource Allocation.....	17
2.5 Materials Management .....	18
2.6 Supplies Management .....	19
2.7 The Basic Objectives of Purchasing.....	19
2.7.1 Parameter of purchasing.....	20
2.8 Purchasing of Education Materials .....	21
2.9 Purchasing Procedure.....	21
2.10 Problems in Purchasing Activities.....	22
2.11 Store Management.....	23
2.12 Objectives of Storekeeping.....	23
2.13 Functions and Responsibility of Store keepers .....	24
2.14 Classification of Materials.....	25
<u>2.15</u> Codification .....	26
<u>2.16</u> Objectives of Codifications .....	28
2.17 Distribution of Material Resources .....	28
2.18 Effective Utilization of Materials Resources.....	29
2.19 Maintenance of Materials and Equipments .....	30
2.20 Types of Maintenance.....	30
2.21 Inventory Management .....	31
2.22 Objective of Inventory Control.....	32

**CHAPTER THREE**

3. Presentation, Analysis and Interpretation of Data .....	33
3.1 Analysis and Interpretation of Data.....	33
3.2 Characteristics of Respondents .....	33

**Chapter Four**

Summary, Conclusions and Recommendations.....	60
4.1 Summary of the major findings.....	61
4.2 Conclusions .....	64
4.3 Recommendations.....	66

**5. REFERENCES**

**6. APPENDICIS**

## List of Tables

<b>Contents</b>	<b>Page</b>
Table 1: Characteristics of Respondents .....	34
Table 2: Respondents response about participation in educational resource planning .....	35
Table 3: Respondents response about Effective Planning of Educational Materials.....	36
Table 4: Respondents response about guidelines rules, policies of resource management and purchasing policy and procedure .....	37
Table 5: Respondents response about the adequacy of educational Materials and resources to carry out training in their colleges.	38
Table 6: Respondents response about the sufficiently Available of educational materials and resources in their colleges..	39
Table 7: Respondents response about the degree of frequency damage of educational materials and resources of the college.....	40
Table 8: Respondents response about the degree of frequent damage educational materials and resource of collage.....	42
Table 9: Respondents response about the educational materials and supplies major causes of damage from most to least .....	44
Tables 9: Respondents response about purchasing of educational material on time in their colleges.....	46
Table 10: Respondents response about specification for instructional materials to be purchased in their college .....	47
Table 11: Respondents response about the distribution of Educational Materials in their college.....	48
Table 12: Respondents response about inventory and control of educational materials in their Colleges.....	49
Table 13: Respondents response about follow up and control the degree of qualitiveness of Educational materials in stores and workshop.....	50
Table 14: Respondents response about operational & maintenance	

guidance manual for new purchased material of training materials in their colleges.....	51
Table 15: Respondents response about handling, utilizing preventing of educational materials in their College .....	52
Table 16: Respondents response about the feeling of responsibilities to prevent and properly utilize the educational materials in their colleges .....	53
Table 17: Respondents response about efficiency of trainers and tool technicians' in proper utilization and handling of educational materials .....	54
Table 18: Respondents response about under stock and overstock, problems solving consultation .....	55
Table 19: Respondents response about problem solving with higher managers when improper resource utilization management problems arise .....	56
Table 20: Respondents response about codification .....	57
Table 21: Respondents response about buy or make of teaching materials.....	58

## List of Appendices

Contents	Page
Appendices I.....	70
Questionnaire for Department Heads, Section Heads and Trainers	
Appendices II.....	76
Interviews for Deans and Deputy Deans	
Appendices III .....	79
ዋና እስቶር ኃላፊዎችና ቱልፐርሰን (ቱል ቴክኒሻያኖች) የሚመልሱት መጠይቅ	
Appendices IV .....	82
በዕቃ ግዥዎች የሚመለሱ መጠይቆች	
Appendices v .....	84
ሰልጣኞች የሚመልሱት መጠይቅ	
Appendices VI .....	88
Observation checklist of the pilot test in Tegbare-ed TVET College	

## **Acronyms**

<b>TVET</b> .....	Technical and Vocational Educational Training
<b>TT</b> .....	Tool Technicians
<b>MSK</b> .....	Main Store Keepers
<b>DH</b> .....	Department Heads
<b>SH</b> .....	Section Heads
<b>EM's</b> .....	Educational Materials
<b>PPBES</b> .....	Planning, Programming, Budgeting, Evaluating System

# CHAPTER ONE

## Introduction

### 1.1. Background of the Study

Organization's settings large and more complex, there arises the need for competent managers or administrative to synthesizing the management of human, physical, financial, time and information resources of the institutions. The systematic handling of institutional employees and resources will enable it to utilize knowledge, skills and experiences of its employees and resources effectively.

Vankaeswara (1993; 1-3) stated that, education is a process through which society transmits knowledge, abilities, skills and values accumulated over the years resulting from interactions with social and physical environment. It is all rounded development and life long process where society secures its existence by handling on its cultural acquisition to each succeeding generation. Moreover, education helps an individual to organize his/hers acquired habits of action that will fit the physical and social environment.

Education is the base for development. More education leads to greater earnings for individual and societies improved economic returns at large (UNESCO 2002). Also as the World Bank (1988:5) puts it forward in such a way that "without education, development will not occur. Only an educated people can command the skills necessary for sustainable economic growth and for a better quality life". UNESCO (1973:75), indicated the TVET program are well acknowledged in Africa that play a significant role in the preparation of skilled manpower for the development of a nation.

Vocational education is an aspect of education that aims at the development of human abilities in terms of knowledge, skills and understandings so that the individual may serve happily and efficiently in carrying on the activities in the vocational pursuits of his choice. Vocational Education is designed to develop skills, abilities, understandings, attitudes, work habits and appreciations, encompassing knowledge and information needed by workers

to enter and make progress in employment on a useful and productive basis (Girma, 2009: 7).

The main and primary objective of establishing Technical and Vocational Education and Training Institute is to train a skilled labor force that adapt to the requirements of the labor market. The main stress was laid upon the development of Technical and Vocational Education to link schooling with the needs of modern sector of economic development. According to Wanna, (1992:57).

Two conceivable justifications could be given for using market outcomes as basis for measuring the effects of vocational programs on participants. First, vocational education is designed to train individual for gainful employment by developing entry level skills; and second, the human development theory considers schooling as an investment that develops human capital.

A Technical and Vocational Education and Training Institute is established with defined goals and objective. Any TVET institute ultimately produces workable human resource as an output. The aim of the institution is to train them in order to be competent enough in the labor market by technical skills. For all mentioned above a leadership and administration is an essential instrument in enabling the training process of the institution to achieve its goals.

Leadership is effective in general, a function of adopting the appropriate leader on the college's condition. Failure to engage in appropriate leadership behavior would lead to subordinate action to be dysfunctional rather than become productive and satisfied.

De Vries (1994:54) considered leadership as a property, the set of characteristics attributed to individuals who are perceived to be leaders. Thus leaders are peoples who can influence the behavior of others without having to rely on forced leaders are people whom others accept as leaders.

The above statement emphasizes that a leader is responsible to plan, organize, guide, and coordinate, control and evaluate the effects of institutional employer effective leadership requires policies on planning human resource, resource allocation, wages, and other matters. The manageability of a system is determined by its capacity to use and change its structures, technologies and resources in order to achieve targets successful or effective training output of an institution concern is dependent upon the ability of its leadership.

Administration is an internal aspect in the school mainly for effective training process. The important figure in school or institute administration the principal. The function of the administrator as Conway (1970:1) “the primary function of a head master is to ensure that he guides the destiny of his institute or school in accordance with the principles which he considers best suits the needs of his trainees.”

Management activities aim at changing or maintaining a system’s status in order to achieve certain goals. Management is, therefore goal-oriented. Goals must specify the outputs to be achieved by the system within a certain period of time (Girma, 2009:10).

Leadership is the process of influencing others to work toward the attainment of specific goals in a business setting or educational institute, a manager is a leader when he or she is able to influence subordinates, peers, or superiors to direct their work effort toward the achievement of organizational goals. Leadership has fascinated people since the dawn of recorded history. References to both good and bad leadership in the literature of every age give testimony to the search for good leaders that has been a common thread running through human civilization. In view of research evidence that effective leadership is associated with better performance and more ethical performance, the search for ways to identify good leaders needs to continue (Worku, 2010:46).

Sherleker and others (1988:20), indicated that materials management in Technical and Vocational Education and Training Institutions is one of the

challenges encounters them because of the shortages of all kinds of resources. Optimum utilization of available scarce resources and prevention of all types of waste is required by adopting scientific system of management and control of materials. In relation to this, (UNESCO, 1978:56), stated that educational planners and decision makers are constantly confronted with problems of getting resources for education resource allocation, distribution and utilization.

In addition with regard to educational materials management, UNESCO (1992:54) explained "... the planning, acquisition, allocation, distribution and controlling the proper use as well as maintenance of educational materials and equipment facilities help in order to realize the objective of the education system". Accordingly, considerable focus has to be given by readers in decision-making, planning, provision, as well as the utilization and controlling of material resources and physical facilities. Materials management is concerned with the planning and programming of materials and equipments, market research for purchase; pre-design value analysis, procurement of all materials, stores control and inventory controls.

The success and failure of government TVET institutions is highly dependent upon the effective and efficient purchasing of materials and its proper utilization. The institutional purchasing and supplies management practice which should be strongly developed to get the best in addition to the other resources like human and information. Purchase and supplies management also involves the application of managing activities and principles.

Sherlekar and others (1979:19), reveals that regarding planning for materials, institutions should forecast their future material plans and consumption of the institution and will also control qualities, quantities and materials availability in store. Materials management and control can make necessary arrangement to ensure supply and proper quality and quantity of all materials and proper quality and quantity of all materials and when needed in the process of production at a minimum cost.

## **1.2 Statement of the Problem**

In the selected Technical and Vocational Education and Training Colleges, there are many problems associated with leadership in the management of educational resources or materials. And the status of purchasing and supplies management practice and its impact on the quality of government Technical and Vocational and Training Institutions was observed.

As UNESCO (1984), depicts even if countries made a great effort to acquire and utilize educational materials and equipment, they are not always employed to the optimum degree. So, the success of the training process is more dependent upon how the institutions and colleges became capable of managing and utilizing their materials and equipments effectively and efficiently to the optimum degree.

It is obvious that the effectiveness of Technical and Vocational Education and Training institutions regarding quality training out-comes depends upon the quality and quantity of equipment and material resources as well as their effective utilization. Regarding this point, facility may either limit or help to develop a training program depending upon adequacy (Reilly, 1996:40).

The Technical and Vocational Education and Training institution principals, concerned administrative staff, trainers, tool technicians, storekeepers and any other members of the staff in the institutions should necessarily know what resources are required and how these resources are managed and utilized in specified department to serve the trainees. The material resource management ability, competence and commitment of all institutional members and the principal management's skill in particular have a great role for a better achievement of educational objectives.

According to this, it is essential to identify the major factors that affects the management of educational materials of TVET colleges. It is also important to provide ideas for efficient and effective utilization of the EM's in those

selected colleges. Moreover an analysis of the status of TVET colleges EM's mgt may contribute additional information to the existing EM's .

This study attempted to address what kind of status of EM's and supplies management exert in selected TVET colleges in Addis Ababa.

### **1.3 Basic Questions of the Study**

The research attempted to investigate and answer the basic and fundamental questions in relation to the “ an assessment of materials and supplies management as follows:

1. Are there guidelines for EM's and supplies management in the colleges?
2. Are the colleges in a position to utilize their EM's and supplies for educational activities only?
3. Do colleges practice the proper purchasing system to fulfill the educational training goals?
4. Are the EM's and supplies fairly distributed in every department levels
5. What are the main problems in store managing, of educational materials and supplies in the colleges?
6. Are the EM's and supplies get proper maintenance to maintain their life of serviceability in the colleges?

### **1.4 Objectives of the Study**

#### **1.4.1 The General Objective**

The General Objective of this study was to analyze the current status of the management of EM's and supplies, identify the major factors which affect the management of those EM's and supplies in those TVET colleges. And indicate necessary alternative solutions which may help to minimize major problems. Secondary to evaluate the managerial efficiency of the principals or responsible bodies of those TVET colleges in respect to the management of EM's and supplies.

### **1.4.2 Specific Objectives**

1. To identify the major problems of management of educational materials.
2. To examine the major problems in TVET colleges that encountered the deans and vice deans in managing the EM's and supplies of their college.
3. To assess the major problems of purchasing.
4. To assess the major problems of management of EM's and supplies in utilizing them.
5. To assess the major problems of store management to utilize the EM's properly in their College.
6. To assess the major problems in maintenance of the EM's and supplies of the college?

### **1.5 Significance of the study**

The significance or importance of this study is to forward applicable solution and recommendation to leaders to understand their primary responsibility of maximizing the performance of the college's personnel's, especially trainers and training how to manage materials in order to run smoothly the training process. Indicating the managerial bodies to avoid limitation and attempt to show how to overcome the existing problems. To evaluate and encourage purchasing and material management practice regarding the quality of the materials purchased and the service the materials provide to the consumer and storage facilities. This study tries to reveal how to improve the efficiency of physical facilities and the proper usage of training material resources and equipments, since these are the most significant factors of the Technical and Vocational Education and Training colleges to enhance the accomplishment of the desired goals.

It is believed that the extent of this study will:

1. Provide information to principals to give due attention to the purchasing system and materials management activities,

2. Provide information about the current status of the EM's availability and efficient utilization and training materials management.
3. Provide insights for other researchers to make further investigation on material resource managements activities of Technical and Vocational Education and Training colleges.

### **1.6 Delimitation of the Study**

In Addis Ababa administrative city there are 7 TVET colleges and 3 TVET institutions of government. These are:

1. Entoto TVET college
2. Addis Ababa TVET college
3. General Winget TET college
4. Nefas Selk TVET college
5. Misrak TVET college
6. Akaki TVET college
7. Higher 12 TVET college
8. Higher 4 TVET institute
9. Higher 7 TVET institute
10. Higher 20 TVET institute

The main target of these colleges and institutions are to train a skilled and more competent manpower in various trades. So this study tries to investigate the major issues in the management of educational materials and supply of the training colleges. Because of their huge organizational structure and possessing of many years experience, also they are suitable in providing adequate and reliable data Entoto TVET College, General Winget TVET College and Addis Ababa Tegebare-Ed TVET College are selected for the research purpose. Delimitation has been made only on these TVET colleges, because it would be very difficult to manage within the limited span of time.

### **1.7 limitation of the study**

In the investigation of this study, the major problems encountered by the researcher were as follows:

## **1.8.1 Sample and sampling Techniques**

### **1.8.1.1 Sampling Techniques**

There are many Technical and Vocational Education and Training middle level institutions and colleges in Addis Ababa City Administration. Among those institutions and colleges available Entoto Technical and Vocational Education Training College, Addis Ababa Tegebare-Ed Technical and Vocational Education and Training College, and General Winget Technical and Vocational Education and Training Colleges are selected using purposive sampling techniques as a source of pertinent, persuasive, relevant and reliable information for the study

### **1.8.2 Population**

The population of the study were the cominties of the three colleges. In the selected three colleges according to the data necessity 9 deans,70 heads, section heads and trainers, 6 purchasers, 19 main store keepers and tool technicians, 60 trainees are taken as sample. So the total sample size are 164.

### **1.8.3 Data Collection Tools**

The research attempted to use two data collection tools. These research data collecting tools are questionnaires and interviews. The questionnaire contains open-ended and closed-ended items. The questionnaire and interviews are developed and administered regarding on the basic questions of the study.

Interviews were administered to collect the necessary information from deans and deputy deans about the availability and improvability of some guidelines on materials and supplies management. Observations are also conducted to get the current status of the colleges.

### **1.8.3 Sources of Data**

The data collection procedures or the data collection sources are two. These are primary and secondary sources. Since the research is aiming at assessing the problem in materials and supplies management practices in selected government colleges of Addis Ababa, the primary or major data sources are deans and deputy deans, department and section heads, purchasers, store keepers, tool technicians, trainers and trainees, of the colleges. These primary sources are selected, because of their responsibility of administrating role and direct implementers and utilizes of the materials and supplies, they can provide a significant contribution to the effectiveness of educational materials and supplies resources management.

The secondary data used were: relevant books, published and unpublished written materials, journals, written policies, legal documents, proclamation and declaration, manuals, reports, different thesis researches related with leadership and management.

### **1.8.4 Statistical Techniques for Data Analysis**

Depending on the nature of the collected data the study employed different techniques. The data was analyzed and interpreted in both qualitative and quantitative way. The collected data are grouped, coded, tallied and are properly organized by tables regarding their classification and different categories to give detailed background information about the population. After these processes the basic statistical techniques are used frequency counts, and percentages are used to analyze various characteristics of the respondents such as sex, age, academic qualification and work experience to determine the proportion of the total respondents who have the same judgment.

## **1.9 Definition of Terms**

**Effectiveness:-** Is the extent to which the leader influences his followers to achieve group objectives (Hneryager and Heckmann, 1967)

**Supplies:-** Are small, non permanent materials that are used for instructional purposes and are actually consumed in use (Girma, 2010).

**Materials:** Refers to the whole range of goods and services which are purchased or otherwise procured from sources outside the organization, and are used or processed or distributed in order to provide finished products of other producers, which include energy and specialized services, raw materials and merchandise for resale (Bezabeh, 1990).

**Maintenance:-** Is the function which has as objective to ensure the fullest availability of production equipment, utilities and related facilities at optional cost and under satisfactory condition of quality, safety and protection of the environment. Maintenance can also be defined as those activities required keeping a facility in as built condition, so that it continues to have its original productive capacity. (MOE May,2005).

**Utilization of materials:** A great variety of materials normally enter into the "making" of a product. These may be direct materials such as component parts, or indirect materials (ILO, 1992).

**Store Management:-** As to manage the overall activities of the store

## **1.10 Organization of the Study**

This study is organized in four chapters. The first chapter comprises background for the problem, statement of the problem, objectives of the study, significant of the study, basic questions of the study, delimitation, limitation of the study, that include research design, sample and sampling

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## **Chapter Two**

### **Review of Related Literature**

#### **2. Introduction**

The study focused on “an assessment of materials and supplies management in selected Governmental Technical and Vocational Education and Training colleges in A.A” so; the review of related literature attempted to show the historical background of TVET and purchasing and supply management, the major leadership functions in managing educational materials in planning and budgeting, the objectives of purchasing in concern to “Five Right’s” store management, objectives of inventory control, the goal and objectives of material management, efficient utilization and distribution of material resources, maintenance of materials, principles, rules, regulations of purchasing according to the basic question and objectives of the research using published and unpublished materials.

#### **2.1 Historical Background of Technical and Vocational Education and Training**

Training and development for human resource in a society was a major issue for survival and even for the improvement of the country’s economy. The earliest and most widely accepted objective of Vocational Education was providing a mechanism for meeting the needs of the local community for skilled workers (Evans, 1987). Vocational Education in fact had a long history. It had connection with human being who struggled to live, Girma (2007) pointed out that vocational education is as old as mankind. Early man practiced a vocation when he hunted in the forest, caught fish in the stream or dug in the ground for roots. Performing task is essential to living, and vocation is what a person does to gain a living survival required that one teach his sons and daughters to perform the task necessary to provide food, clothing, shelter. This teaching was the earliest Vocational Education.

## **2.2 What is Leadership?**

There are several definitions given to leadership. Different books and lexicon provide some varying definitions on the term leadership.

McGegor (1966:73) in Nigessie (2007:10-11) defines leadership as property of the individual, but a complex relationship among those variables. It follows that leadership is the natural and acquired property of an individual manifested in the process of influencing individuals or groups to attain certain common ends through common grounds and on equal footing.

Blanchard and Hershey (1982:82) define leadership as the activity of influencing people to strive willingly for group objectives.

koontz et.al (1984:507) defined that leadership as the process of influencing people so that they will strive willingly and enthusiastically towards the achievement of group goals.

This implies not only willingness to work but also willingness to work with real and confidence. It also includes making people perform up to their full capacity.

In other words, a leader is the overall person to share his views, ideas, information and operational devices to stimulate the interest and to influence the behavior of his followers so as to fully participate in an organizational goal achievement on one hand and to ensure that they are fully aware of his views and ideas on the other.

Considering the basic principles and concepts of leadership the dean's role is therefore to encourage the teaching and non-teaching personnel to work together and to fully cooperate in the development and implementation of educational policies, directives and plan of effective and efficient management of resources which ensure proper teaching learning process.

The various and complex activities of an educational organization to be performed by the deans requires the activity of effective leadership.

## **2.3 Educational Resource Management**

### **2.3.1 Management of Resources**

The Association of School Business Official, Curtis (1971:407), developed a useful conceptualization of resource management called ERMS. The association conceptualized business administration service as a component of the total education system provided for the purpose of facilitating the attainment of educational objectives. ERMS was explained as follows:

An ERM system should be viewed as basic conceptualization of a planning, programming, budgeting, evaluating system (PPBES) application. The system is designed for the management of educational resource in local college districts.

The ERMS conceptualization had its origin in the planning, programming, and budgeting systems (PPBS) used in industry. The association adapted PPBS to education, renamed it PPBES, and described it as an educational resource management system. Following are the basic assumptions, upon which ERMS is based as Morphet, (1982:408):

“The resources available to a college district are equal to the demands of the district. The college district exists to produce set of outcomes-to achieve certain objectives expressed as specific changes in characteristics of the learners. Objectives of a college district can be achieved theoretically in a multitude of ways (program plans), some of which are more effective than others. Productivity of a college district can be increased by the organization of learning activities and supporting services into programs specifically directed toward achieving previously defined goals and objectives. Better decisions regarding the selection of program plans and greater benefits from their operation result when the costs therefore are considered on a long-term (multi-year) basis. Better decisions regarding the selection of program plans and greater benefits from

their application result when outcomes are related methodically to objectives”

## **2.4 Effective Management of Educational Resources**

### **2.4.1 Resource Utilization**

Negessie (2007:51-52) stated that, acquisition of resources unless supported by some procedures will create ineffective utilization of college resources. To this effect, college dean together with his teaching and non-teaching personnel creates a guideline to serve, as a mechanism is the effective utilization of resources.

The training materials such as textbooks, reference books, maps, globes, laboratory equipments and other materials are requested by the college dean and procured by the book stores for allocation.

To request and procure the materials ahead of time determines the awareness and the efficiency of the college dean.

The procurement of training materials largely depends up on the ahead of time demand of the college dean. In other words, the dean determines the kind and amount of instructional resources. The determination is accompanied by mechanisms that can be applied for proper usage. For example rules and regulations of handling and managing resources would determine the store house where they are carefully placed and they're by ascertaining the responsibility of the teaching, non teaching, trainees etc, for effective utilization of college resources.

All these precautions have taken ahead of time to ensure the effective teaching learning by effective usage of college resources.

### **2.4.2 Resource Allocation**

Allocation of educational resources refers to transporting, sending or giving out the resources from available resources to where they are needed and in turn allocated to smaller groups such as trainers and trainees for use in

classes. The allocation includes both far and nearer areas. The allocation includes both resources allocated to users are not to be kept in the store, but are to be handed out for the trainers and the trainees, to effect good teaching and learning interaction. In allocating educational resources at college level. College Dean needs to formulate allocation mechanism, in this connection.

Otto (1954:607) suggests:

“As books and others instructional materials are allocated to teachers, the office keeps a complete record of each teacher’s account with the bookroom.”

Once distributed trainers too, are accountable for the loose and mishandling of textbooks and other instructional resources. This is realized by making each student sign against the books received. It is also and/or equally important to inform parents and guardians of students through a duplicate copy of the signed papers. The signed paper or document shows the kind of instructional materials will help them to check and to continue checking the conditions of the materials, this double-checking system of the college and parents will increase the span of life of the material.

## **2.5 Materials Management**

Effectively and efficiently managing resource may lead to success as much as improper and poor handling of the same resources may lead to failure. Materials management is the function, which aims for integrated approach towards the management of materials in an organization undertaking. Its main objective is cost reduction and efficient handling of materials at all stages and in all sections of the undertaking. Its function includes several important aspects with materials such as purchasing, storage, inventory control, materials handling, standardization etc (Kumar and Suresh, 1998:52).

Deferent authorities define materials resources management in different ways. A great attention is given to the field that, materials resources heavily influencing many aspects of the training process. Materials management is defined as the function responsible for the coordination of planning, sourcing, purchasing, moving, storing and controlling materials in an optimum manner so as to provide a peer-decided service to the customer at a minimum cost. From the definition it is clear that the scope of materials management is vast (Kumar and Suresh 1998:53).

## **2.6 Supplies Management**

Supplies management is the best way of planning, organizing, and directing of materials inflow-outflow in the institutions. It focuses on the management of all materials and it is one of the major functional areas in the institutions, Yeronimuse (1984:4) defined supplies management as follows:

A multi-faced discipline with insuperable functional values which are ultimately concerned with management objectives such as focal-proof possessions, fail-safe governance, judicious distribution of materials and an unfailing recuperative capacity that keeps the keel of the organization steady.

Yeronimuse (1984:4) also added on the same page that management is not only related to raw materials or merchandise but also consumable items like stationeries etc, and non-consumable items like machines, tools, spare.

Supply management is generally regarded as a systematic business process that includes more functions than traditional buying, such as coordinating inbound and internal pre-production logistics and managing, inventory. Retrieved in January 2008, Wikipedia, the free encyclopedia.

## **2.7 The Basic Objectives of Purchasing**

Dobler and Burt (1984:12) define the objective of purchasing as follows:

1. to support company operations with an uninterrupted flow of material and services

2. to buy competitively and wisely
3. To keep inventorying investment loss (due to deterioration, obsolescence and theft) at a practical minimum.
4. to develop reliable alternate source of supply
5. the purchasing objective in general as it supports the organizations operations with an uninterrupted flow of materials and services, to buy competitively and wisely, to develop alternate source to supply, to develop good vendor relationships and good continuing supplier relationships, to achieve maximum integration with the departments of the organizations, to train and develop highly competent personal who are motivated to take the organization as well as their department succeed, and to develop policies and procedures which permit the accomplishment of the proceeding objective and to keep inventory investment losses (due to deterioration, obsolescence and theft) at a particular minimum .

### **2.7.1 Parameter of purchasing**

Alemseged (2008:25-26), stated that, the success of any organizational activity is largely dependent on the procurement of raw materials of the right quality, in the right quantities, from the right source, at the right time and at the right price. (Kumar and Suresh, 1998:56).

The objective of purchasing is to support the operation of the organization with an uninterrupted flow of materials and services, to buy competitively and wisely, to develop alternate sources of supply, to develop good vendor relationships and good continuing supplier relationships, to achieve maximum integration with the other department of the organization.

## **2.8 Purchasing of Education Materials**

Mbamba (1992:198) indicated that, the major function of purchasing embraces the flow of materials from the supplies to an organization which has the intention of facilitating the attainment of predetermined objectives.

In a narrow sense, the term 'purchasing' simply describes the process of buying; however in a broader sense, the term involves determining the need, selecting the supplier, arriving at a proper price terms and condition, issuing the contract or order, and following up to ensure proper delivery (Alijian, 1973:1).

## **2.9 Purchasing Procedure**

Dereje (2006:30) indicated that, the purchasing processes may vary according to the rules and regulations a country follows. Its basic aim is to ensure that what is needed is made available when it is required. The materials to be bought should conform to the established standards and more of instructions. But the procedure for procurement of educational resource materials may vary according to the nature of education, the essential steps are as follows:

- Ascertaining or recognizing the need for the material by using check-up of the available stock.
- Determining the quality of materials which will be required, regarding to the level of available funds.
- Deciding on priority basis in relation to the available funds.
- Drawing detailed specifications of the required items.
- Preparing and publishing tender documents.
- Analyzing the tenders to determine the prices, availability of materials etc.
- Based on the present proposal on the quality, quantity of items, reasonable prices, delivery date, ability of supplier, etc. approving the tenders who should supply the materials.
- Awarding the contract for the supply of materials.

## **2.10 Problems in Purchasing Activities**

Genene (2008:25) stated that, purchasing is not only clerical activities, but also practical which required special set of talent possessed through qualification and experience it could not performed by any person. Cost-benefit analysis must be practiced whenever purchases goods and service for the institution. Baily and others (1994:22) explained the points by asking a question. Why is purchasing developing so belatedly? There are many reasons to account for the slow development of the purchasing factions. We will identify some of the most important factors as follows:

- a. Some organizations have accepted that buying is akin to ordering largely a reactive clerical function. A culture has developed based on the assumption that "any one can buy". This view has to a large extent now.
- b. Many businesses up to the 1960's and even the early 1970's had little difficulty in selling the goods and services that they produced and commanding the prices they wanted. There were little problems in passing cost increases on the customers.
- c. Whilst there was a professional body representing buyers (i.e., the institute of purchasing and supply) awareness and membership was relatively low.
- d. Poor information systems failed to indicate what it was really costing an organization to operate a poorly developing purchasing and supply function.
- e. The fact that purchasing and supplying function was not actively involved in such strategies could be ignored.

In addition to this, Weele(2000:13) explained the purchasing problem in the following manner:

- Purchasing impact on the bottom line to the company the higher the volume or amount of money involved the higher the financial impact of purchasing on the bottom line.

- The supply risk:- this is measured against criteria such as short term and long term availability, number of potential suppliers, make or buy opportunities and so on represents a high supplies risk.

## **2.11 Store Management**

'store' is a general term describing goods, which are held in store house and stock yards. The word 'store' is also used in most organizations to designate an area in which all kinds of materials needed for production, distribution, maintenance, packing etc...which are stored received and issued (EMI, 2001).

Dobler (1977:343) defined, store management as process of setting and achieving goal through store management functions that utilize human, financial and material resources.

Store management is responsible for each type of storage materials through proper identification of material, efficient physical handling, and protection of materials against spoilage in the warehouse; in addition, the store manager also controls the activity of materials during receiving, issuing and controlling materials recorded in the ledger in a systematic manual. Even though, receiving and store department seems unrelated, they are very important in materials management chain, according to Dobler and Bust (1990:545) "receiving and store operation provide both service and control function" when the receiving department is responsible for proper receiving of materials from supplies, the store's department is also responsible for storing materials in appropriate place in storeroom.

## **2.12 Objectives of Storekeeping**

In government TVET higher institutions especially for all class materials, a storekeeping is the major question that may be asked. Because institutions could develop objectives and goals for their respective programs, otherwise, institution could not achieve their goal and could not evaluate their performance against the standard and that leads to inefficient for TVET

program. Sherlekar and other (1988:27) stated the objective of storekeeping as follows:

1. It offers protection against fire, damage, deterioration, theft, losses
2. It must allow for easy, quick and sure receipt, store and disbursement of material when properly authorized.
3. It must provide space and storage equipments as to both side and load bearing capacity for the material to be stored.
4. It is an organized store and as such it must provide means for identifying and quickly locating articles and any contents for this purpose it as the device of indexing, identification marks and label
5. It should provide for the selection of the oldest material promptly
6. Optimum use of storage space and labour is possible
7. minimum investment in inventories can be assured
8. Ease in inventory taking and effective inventory control can be obtained.
9. We have assurance of continuous flow of materials to keep and maintain production schedule in fact.
10. The aspect of materials management concerned with physical custody is storekeeping.

### **2.13 Functions and Responsibility of Store Keepers**

Genene (2008:26) showed that, there are duties and responsibilities of stores must be clearly stated. Government TVET higher education institutions should practiced store operation for effective performance. as to how the material would be received, classification of materials, quality control, inventory control, quantity, balancing materials, issuing materials, design store layout, record material are the major functions of store and the staff members are responsible for all activities in store. Nair (2004:32) stated the store function and responsibilities as follows:

1. Receiving all incoming materials and see that the quantities are correct according to invoice
2. See that the daily goods receipt register is properly maintained
3. Arrange for inspection of materials received
4. Ensure that goods inward note are raised and distributed without delay
5. See the materials are properly stored against deterioration, thief etc, and those they are readily available for issue.
6. Issue materials against authorized requisitions to production and other department
7. Maintain accurate records (Bin-cards) of materials received, issues, and in storage and see that the posting are up-to-date
8. Ensure that all documents relating to receipts and issues are sent to stock control, accounts and other departments without delay.
9. Carry out stock verification in accordance with the procedure laid down by the management.

Government TVET higher education institutions may practice the above points for good performance because institutions without store operation could not achieve the goal.

## **2.14 Classification of Materials**

Classification of TVET educational materials is grouping of materials according to their usage, nature, type, value that could improve the stock control techniques for efficient utilization of materials

Nair (2004:33) stated that, classification is division of materials into different groups based on similarities or technical affinity. A good system of classification should help stock control as follows:

- a. To group together stock control cards for materials of identical nature, e.g. electrical items together, oil together and so on.
- b. to raise separate purchase requisition for different types of materials
- c. to complete budgetary figure under various subheadings such as

- purchase section
- receiving section
- stores
- accounts

## **2.15 Codification**

Alemesged (2008:32) cited many researchers about codification that, material identification system a store manger clearly communicates with materials management like purchasing, inventory and store department is critical area were the system of material cataloging and indexing needed constant design of material identification system in the organization (Dobler and Burt, 1950:549)

Gopalokrishnan and Sundareson (1998:41) define codification as “.... process of representing each item by a number, the digits of which indicate the group, the subgroup, the type and the dimension of the item.”

It is one of the functions of store management. Codification is the process of representing each item by a number, the digit of which indicates the group, the type and the dimension of the item. Many organizations in the public and private sectors, railways have their own system of codification, varying from eight to thirteen digits. The first two digits represent the major groups, such as raw materials, spare parts, sub-contracted items, hardware items, packing materials, tools, oil, stationery etc. The next two digits indicate the subgroups, such as ferrous, non-ferrous etc. Dimensional characteristics of length, width, head diameter etc constitute further three digits and the last digit is reserved for minor variations (Kumar and Suresh, 1998).

Codification should be compact, concise, consistent and flexible enough to accommodate new items. The sub-grouping should be logical, holding, similar parts near to one another (Kumar and Suresh, 1998:67).

According to Dobler (1977:41) there are three systems of material identification methods: arbitrary, symbolic and Mnemonic approach.

According to Datta (1998:254) one of the pre-requisites of classification and codification is to know basic nature and characteristics of all materials used in an enterprise and classify them in broad categories, and then to group and subgroup them in logical progression of kinds, type sizes. He further states the commonly found systems of codification as follows:

- i. Alphabetical systems;
- ii. Numerical system;
- iii. Brisch system; and
- iv. Kodak system

**i) Alphabetical System**

In this system “alphabets” are used to code items. Each item is grouped to its nature, use, etc and codes are allotted in alphabetical order. In addition, subsequent sub-alphabets are used depending upon other characteristic of the material in question and with a large number of items. However, this system has some problems with a large number of items; there might be repetition of alphabets in the same code. It is suitable where the number of items is small.

**ii) Numerical System**

As opposed to alphabetical, numerical system uses numbers. In this system, simple numbers block numbers or dash are used to identify items.

**iii) Brisch System**

In this system, the items are grouped into suitable preliminary categories, such as assemblies, sub-assemblies, and components of the shelf items. It has a comprehensive nature and consists of only of seven digits. Brisch system thought it consists only of seven digits; it is not rigid and lends itself to easy adoption.

**iv) Kodak System**

Kodak system utilizes ten digits of numerical code. The logic of major grouping is based on sources of supply. All materials are divided into hundred basic classifications, contributed only by procurement considerations.

In the function of distributing instructional materials teachers, administrators and students are also accountable for lose and mishandling of textbooks, workshops machines, tools and other relevant materials. Therefore, to improve teaching and learning process, resources have to be wisely selected, distributed and managed effectively to achieve the objective of educational instructions.

## **2.18 Effective Utilization of Materials Resources**

As Alemseged (2008:37) cited many writers and researchers, proper use of educational materials like workshop machines, tools and other equipments may depend on the competence of the teachers, administrators, storekeepers, tools personnel (technicians) and supervisor commitment in the use of materials Mbamba, (1992:162).

From the above statement it is possible to conclude that the commitment of the concerned body is very crucial for materials management and efficient utilization of materials in the institutions.

Mbamab(1992:154-155) defines material management is education as the aspect of management or executive functions connected with the planning acquisitions, allocation, distribution and controlling, the proper use as well as maintenance of educational materials and functions in order to realize objectives of the educational system.

According to Ballot (1980:17) materials management and optimal utilization as follows;

Managerial management can be defined as the coordinated function responsible to plan for acquire, store, move and control materials and final products to optimize usage of facilities, personnel, capital funds and to provide customer services in line with corporate goals.

Monk (1982:23) defined materials management as “the planning, organization, and controlling of the flow of materials, from their initial purchase through internal operation to the distribution of finished goods”.

## **2.19 Maintenance of Materials and Equipment**

Training machineries and equipments of TVET colleges served for many people's at large throughout the year by the trainees. Due to this and other reasons training materials need continuous maintenance and follow-up. Ray, et.al (2001: 238) stress the point that maintenance enables the provisions of services without stoppage and in addition Elmo (1963), defines maintenance as continues process of repair and replacement of pieces of property whether grounds building or equipment as nearly as possible to the original condition of completeness. It also goes further and includes good care and wise use of materials and equipment in a proper way.

According to Harries (1988:209) maintenance function is seen as a layman's job and managers usually undermine its importance. It helps in protecting further damage of the resources and lays a good ground for reuse, which offer wise, demand or force to buy the newer one, that is of course costly for the organization. It refers to "the logical service involved with a school plant, an auxiliary structure, or an item of equipment in a series of systematized function".

Technical and Vocational Education and Training Institutions facility operates and maintenance quality learning. The major business responsibility is to ensure that through the provision of quality maintenance service that the student has an environment which is safe, health and environmentally friendly (MOE, 2005:3)

## **2.20 Types of Maintenance**

Harris (1985:213) categorizes maintenance function into four:

1. **Preventive Maintenance Program:** this type of maintenance primarily deals with both equipment and facilities. The primary goal of preventive maintenance to provide that care which is needed to maintain operation or to preserve the object for a longer duration without costly repairs or lost person hours. It also reduces the amount of time that the equipment or materials is out of use.

products varies from industries to industries depending up on the cycle time of manufacture. It is therefore necessary to hold inventories of various kinds to act as a buffer between supply and demand for efficient operation of the system. Thus, an effective control on inventory is a must for smooth and efficient running of the production cycle with lead interruptions Kumar and Serch (1998:54).

## **2.22 Objective of Inventory Control**

Inventory control is essential for the materials that are available at hand that keeps in stock for the specified period. Any TVET institution, without controlling inventory at the right time, does not properly run its program. Inventory control is good to protect overstock. TVET institutions may develop practice and procedure of inventory control technique. Sherlekal and others (1988:35) as follows:

1. We have to reduce to the minimum idle time due to shortage of materials and spare parts, neither man or machine should have idle time due to lack of materials,
2. Similarly, we have to maximize service and satisfaction to our customers with regard to fulfilling the due dates strictly as per orders.

If the government TVET institutions practiced the above procedure, it is clear that they minimize the possibility of delay in purchasing materials, avoid lack of materials, improve their co-ordination at work, and determine their budget and other related activities would be improved.

## **CHAPTER THREE**

### **3. Presentation, Analysis and Interpretation of Data**

#### **3.1 Analysis and Interpretation of Data**

This chapter deals with presentation, analysis and interpretation of the data gathered from three governmental TVET colleges of Addis Ababa. These TVET colleges are Entoto TVET College, Addis Ababa Tegebare-ed TVET college, and General Wingate TVET colleges. The gathered data's are from Department Heads, Trainers, and Trainees, purchases, main store keepers and tool technicians of those TVET colleges. To collect important data, questionnaires, interview and observation are used. The primary and secondary sources were utilized to analyze the basic questions mentioned in chapter one.

#### **3.2 Characteristics of Respondents**

Out of the total 164 questionnaires distributed for the sample three colleges, from department heads, section heads and trainers 68 (41.46%) ,60 (36.58%) from trainees, 16(9.75%) from main storekeepers and tool technicians, from purchasers 6 (3.65%), from deans and vice deans interview 7(4.26%) questionnaires were filled and returned. From the total 164 questionnaires distributed 7(4.26%) questionnaires from respondents were not returned back. So the returned questionnaires 157 (95.70%) are selected for the research study as legible data's for the presentation and analyses.

**Table 1: Characteristics of Respondents**

Personal Data	dean & vice dean	Trainers Department Heads & Section heads		Purchasers		Tool person and main store		Trainees		Deans & Vice dean	
		No.	%	No.	%	No.	%	No.	%	No	%
Name of the TVET colleges	Entoto	27	39.70	2	33.33	6	37.5	21	35	3	42.85
	G. Wenget	23	33.82	2	33.33	6	37.5	20	33.33	2	28.57
	A.A. Tegebared	18	26.47	2	33.33	4	25	19	31.66	2	28.57
<b>Total</b>		<b>68</b>		<b>6</b>		<b>16</b>		<b>60</b>		<b>7</b>	<b>99.99</b>
Sex	Male	58	85.29	2	33.33	10	62.5	31	51.66	7	100
	Female	10	14.70	4	66.66	6	37.5	29	48.33		
<b>Total</b>		<b>68</b>		<b>6</b>		<b>16</b>		<b>60</b>		<b>7</b>	<b>100</b>
Age	14 – 18	0						16	26.66		
	19 – 23	2	2.94			6	37.5	43	71.66		
	24 – 28	24	35.29	1	16.66	5	31.25	1	1.66		
	29 – 33	22	32.35			3	18.75				
	34 – 38	6	8.82	2	33.33	1	6.25				
	39 – 43	3	4.41	3	50.00						
	44 – 48	5								5	71.42
	Above 48	6	8.82			1	6.25			2	28.57
<b>Total</b>		<b>68</b>		<b>6</b>		<b>16</b>		<b>60</b>		<b>7</b>	<b>99.99</b>
Qualification	High school completed										
	10+2 or Level 3					1	6.25				
	10+3 or Level 4					6	37.5				
	TVET Diploma					3	18.75				
	College Diploma	1	1.47	4	66.66	6	37.5				
	First Degree	52	76.47	2	33.33					2	28.57
	MA degree	15	22.05							5	71.42
<b>Total</b>		<b>68</b>		<b>6</b>		<b>16</b>		<b>60</b>		<b>7</b>	<b>99.99</b>
Service year	1 – 5 years	29	42.64	5	83.33	11	68.75			4	57.14
	6 – 10 years	21	30.88	1	16.66	3	18.75			3	42.85
	Above 11 years	18	26.47	-		2	12.5				
<b>Total</b>		<b>68</b>		<b>6</b>		<b>16</b>				<b>7</b>	<b>99.99</b>

As shown in Table 1 of the personal data, the sex composition of the respondents are both male and female except that of the dean and vice dean respondents are only male. According to this only 7 (100%) of deans and

vice deans are males. But totally to show that 108(68.78%) of them are males. On the other hand, 49(31.22%) of the respondents are female. Here the predominant respondents are male.

Next the age composition of respondents depicts that, 51 (32.48%) from 19-23, 31(19.74%) from 24-28; 25(15.92%) from 29-33; 9(5.73%) from 34-38, 6(3.82%) from 39-43, 10(6.36%) from 44 -48 and 9(5.73%) above 48 years old. Finally 16 (26.66%) from 14-18 years old. From these it employs that the majority of the respondents 51 (32.48%) are between the age of 19-23 years old. Least aged respondents 9(5.73%) of them are above 48 years old.

As the data in the above table shows concerning the respondents; 56 (57.73%) of them are first degree holders whereas 20(20.61%) of them are MA graduates. 1 (1.03%) is level 3 graduate and 6 (6.18%) are level 4 graduates. Also 3 (3.09%) TVET diploma & 11(11.34%) are college diploma graduates.

According to the respondents service year, from table 1 of their personal data shows that, 49(50.51%) of them from 1-5 years and 28(28.86%) of them served 6-10 years and 20(20.61%) served above 11 years. From this it implies that most of the respondents served from 1-5 years.

**Table 2: Respondents responses about participants in educational materials planning**

1	Items regarding participation in educational resource planning	Responses of DH,SH, & trainers	
		No	%
1.1	Finance Administrative	30	44.11
1.2	Trainers	33	48.52
1.3	Department heads, section heads	27	39.70
1.4	Both departments, section heads with trainers	29	42.64
1.5	Both administrative staff and trainers	16	23.52

As Table 2, item regarding participation in educational resource planning the department heads, section heads and trainers responded that the most participants of educational resource planning are trainers which comprises 33 (48.52%). But both administrative staff and trainers 16 (23.52%) comprises least responds. Then most respondents suggested that the plan should be designed by the participation of trainers. Here it can be concluded that the deans, vice deans and administrative bodies must invite all staff members in planning education resource management to create proper usage of the valuable assets without loss.

**Table 3: Respondents responses about Effective Planning of Educational Materials.**

Items regarding effective planning.	Degree of effectiveness of DH, SH and Trainers									
	5		4		3		2		1	
	No.	%	No	%	No	%	No	%	No.	%
Objective of resource management planning	18	26.86	23	34.32	17	25.37	6	8.95	3	4.47
Clarity and simplicity of planning	13	19.40	24	35.82	18	26.86	10	14.92	2	2.98
Implementation status depending an annual planning	6	8.82	25	36.76	17	25	9	13.23	11	16.17
Regular staff meeting	12	17.91	17	25.37	17	25.37	13	19.40	8	11.94

Key = 5= Excellent 4= Very good 3 = Good 2 = Fair 1= Poor

DH=department head SH=section head

As shown in Table 3, the rate of effective planning of educational materials according to objective of resource management planning department heads, section heads and trainers responded that, the effective planning was excellent. The effective planning regarding clarity and simplicity of planning very well, 18 (26.86%) replied that simplicity of planning EM's is good and in implementation status depending on annual planning respondents rated 25 (36.76%) is very good. The effective planning according to regular staff meeting the respondents rated 13(19.40%) of them for fair.

One can conclude that the effective planning of educational material of those three colleges Entoto TVET College Tegbare-ed and general Winget TVET colleges are practicing the effective planning of EM's is very good.

**Table 4. Respondents responses about guidelines rules, policies of resource management and purchasing policy and procedure**

Items regarding guidelines, policy and procedures of resource management and purchasing	DH, SH and Trainers, main store keepers and tool technician						Purchasers					
	Av		NAV		IDK		AV		NAV		IDK	
	No	%	No	%	No	%	No	%	No	%	No	%
Is there any educational material and resources management general guidelines.	40	47.61	17	20.23	27	32.14						
Is there any governmental purchasing procedures & policy in your college?							6	100				

Key: DH=department head, SH=section head, AV= available, NAV=not available, IDK= I don't know

As shown in the Table 4, regarding guidelines, policy and procedure of resource management and purchasing are replied by DH, SH, trainers, main store keepers and tool technician and purchasers. The respondents responded that 40 (47.61%) of them replied that educational materials and resource management general guidelines are available in their colleges. 17 (20.23%) rated not available and 27 (32.14%) of them responded that they do not know about the availability of general guidelines of resource management. On the other hand 6 (100%) of the purchasers responded

that governmental purchasing procedure and policy in their colleges are available.

From this it can be concluded that the managers tried to facilitate ground to introduce the availability of guidelines.

Regarding the availability of rules and policies for resource management the respondents indicated that 7(43.75%) of them suggested the availability of governmental proclamation and procedure and 9(56.25%) of them indicated that the college's finance and resource management procedure are available in their colleges.

One can conclude that the management bodies of the colleges have done awareness to help personnel's know about rules and policies.

**Table 5: Respondents responses about the adequacy of educational materials and resources to carry out the training in their colleges.**

Items regarding adequacy or availability of educational materials and supplies	Responses of Department heads, Section Heads, Trainers	
	No.	%
Very adequate	11	16.17
Moderately adequate	36	52.94
Less adequate	21	30.88

Responses regarding adequacy or availability of educational materials 36 (52.94%) of the DH, SH, trainers indicated that the availability of EM's and supplies are moderately adequate, 21 (30.85%) of them suggested that less adequacy of EM's and supplies were seen and surprisingly less than the average of them 11 (16.17%) responded that there is very adequate EM's and supplies.

From these one can conclude that the adequacy of the EM's and supplies is not sufficient. So, deans, DH, SH, trainers and main store keepers could try to alleviate the less adequacy of EM's and supplies.

Key MSK=main store keepers TT=Tool technicians

**Table 6. Respondents responses about the availability of educational materials and resources in their colleges.**

Items regarding the availability of educational material and resources sufficiently	Responses Trainees									
	5		4		3		2		1	
	No.	%	No.	%	No.	%	No	%	No.	%
Bindings of the college	44	73.04	9	14.94	4	6.64	2	3.32	0	0
Tables	47	78.02	8	13.28	2	3.32	2	3.32	0	0
Chairs	43	71.38	10	16.60	4	6.64	2	3.32	0	0
Workshops	18	29.88	18	29.88	15	24.90	2	3.32	2	3.32
Machines in workshop	15	24.90	18	29.88	19	31.54	5	8.30	6	9.96
Tools in workshops	15	24.90	18	29.88	17	28.22	5	8.30	2	3.32
Raw material in workshops	14	23.15	12	19.92	15	24.90	8	13.28	8	13.28
Electric systems	26	43.16	10	16.60	15	24.90	2	3.32	2	3.32
Water pipes	52	53.33	3	4.98	10	16.60	6	9.96	5	8.30
Black boards	40	66.66	11	18.26	1	1.66	2	3.32	0	0
White boards	32	33.33	14	23.25	8	13.28	2	3.32	1	1.66
Library	37	61.66	15	24.90	2	3.32	2	3.32	3	4.98
Clinics	11	18.26	16	26.56	14	23.25	7	11.62	5	8.30
Computers	15	24.90	12	19.92	16	26.56	4	6.64	11	18.26

Table 6 shows regarding the availability of EM's and resources sufficiently, the trainees responded the availability of EM's in high degree of satisfaction. The respondents satisfaction is very high in the availability of EM's and resources like 47 (78.02%) Tables, 43 (71.38%) chairs, 26 (43.6%) electric systems, 32 (53.33%) water pipes, 40 (66.66%) blackboard, 32 (53.73%) white boards, 37 (61.66%) library are highly available.

Computers, are insufficient. Raw materials in workshops, 6(9.98%) machines in workshops, not available sufficiently.

One can conclude that most of the respondents suggested and are highly satisfied in the availability of EM's and resource of their colleges.

**Table 7.1: Respondents responses about the degree of frequency damage of educational materials and resources of the college.**

Items regarding frequency damage of educational materials	Respondents of trainers									
	5		4		3		2		1	
	No	%	No	%	No	%	No	%	No	%
Buildings of the college	7	10.29	10	14.70	8	11.76	16	23.52	12	17.64
Tables	13	19.11	6	8.82	13	19.11	19	27.93	6	8.82
Chairs	9	13.23	14	20.58	15	22.05	14	20.58	7	10.29
Workshops	5	7.35	9	13.23	16	23.52	17	24.99	7	10.29
Machines in workshops	10	14.70	11	16.17	11	16.17	19	27.93	3	4.41
Tools in workshops	9	13.23	13	19.11	10	14.70	19	27.93	4	5.88
Raw materials in workshops	7	10.29	9	13.23	13	19.11	18	26.46	6	8.82
Electrics systems	8	11.76	10	14.70	12	17.64	14	20.58	9	13.23
Water pipes	7	10.29	10	14.70	8	11.76	17	24.99	9	13.23
Black boards	6	8.82	7	10.29	9	13.23	14	20.58	16	23.52
White boards	4	5.88	5	7.35	8	11.76	15	22.05	20	23.46
Library	7	10.29	3	4.41	6	8.82	12	17.64	25	36.75
Clinics	0	0	10	14.70	10	14.70	12	17.64	22	32.34
computers	12	17.64	10	14.70	14	20.58	14	20.58	9	13.34

5=very High damage, 4=high damaged, 3= moderately damaged, 2= less damaged, 1= no damage

As shown in the above Table 7.1, items regarding frequent damage of EM, the responses of trainees that chairs and tables are highly damaged.

One can conclude that even though the damage differs, all the necessary educational materials are damaged. Especially tables and chairs face very high damage and workshops moderately damaged. Machines, raw materials and tools in workshops face less damage.

**Table 7.2: Respondents responses about the degree of frequent damage of Educational materials and resources of colleges.**

Items regarding frequency damage of educational materials and resources	Respondents of DH, SH trainers									
	5		4		3		2		1	
	No	%	No	%	No	%	No	%	No	%
computers	12	17.64	18	26.46	14	20.58	13	19.11	7	10.29
Lap-top	6	8.82	5	7.35	15	22.05	14	20.58	16	23.52
Tables and chairs	17	24.99	11	16.17	22	32.34	10	14.70	6	8.82
Machines in the workshop	4	5.88	13	19.11	26	38.22	18	26.46	4	5.88
Materials in food preparation classes	4	5.88	7	10.29	8	11.76	10	14.70	17	24.99
Materials in hair dressing classes	3	4.41	11	16.17	7	10.29	15	22.05	15	22.05
Tools in workshop	2	2.94	9	13.23	22	32.34	17	24.99	6	8.82
Electric systems	9	13.23	13	19.11	22	32.34	11	16.17	4	5.88
Water pipes	7	10.29	18	26.46	14	20.58	10	14.70	7	10.29
Raw materials in workshop	7	10.29	8	11.76	19	27.93	17	24.99	5	7.35
Raw materials in stores	5	7.35	6	8.82	11	16.17	25	36.75	11	16.17
Buildings	6	8.82	5	7.35	8	11.76	5	7.35	15	22.05
Text books	6	8.82	7	10.29	10	14.70	16	23.52	12	17.64
Reference books	6	8.82	4	5.88	7	10.29	15	22.05	14	20.58
Printers and photocopiers	8	11.76	25	36.75	14	20.58	7	10.29	7	10.29

5=very High damage, 4=high damaged, 3= moderately damaged, 2= less damaged, 1= I don't know

Table 7.2 above shows responses of DH, SH, trainers, items regarding frequently damage of EM's and resources. The respondents indicated that tables and chairs encountered very high damage. In case of printers and photocopiers the degree of damage high. Machines in the workshops and raw materials in stores are in the extent of less damage.

**Table 7.3: Respondents responses about the educational materials and supplies major causes of damage from most to least**

Key: 1= the most major cause, etc 9= the list major cause

Items regarding major causes of damage from most to list of educational materials	Respondents of DH, SH Trainer's																	
	1		2		3		4		5		6		7		8		9	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Lack of proper storage	4	5.88	4	1.88	4	5.88	1	1.47	5	7.35	7	10.24	4	5.88	0	0	0	0
Lack of proper handling	8	11.76	3	4.41	2	2.94	1	1.47	7	10.29	2	2.94	2	2.94	1	1.47	1	1.47
Lack of utilization skill of trainers	2	2.94	3	4.41	5	7.35	4	5.88	2	2.94	7	10.29	2	2.94	1	1.47	1	1.47
Lack of effective and efficient store management	5	7.35	5	7.35	2	2.94	3	4.41	6	8.82	3	4.41	3	4.41	0	0	0	0
Lack of utilization skill trainers'	8	11.76	4	5.88	4	5.88	7	10.29	1	1.47	3	4.41	2	2.94	0	0	0	0
lack of follow up by person side bodies	2	2.94	8	11.76	5	7.35	5	7.35	3	4.41	5	7.35	1	1.47	0	0	0	0
Lack of proper keeping of instructional materials by the guardians	0	0	1	1.47	6	8.82	5	7.35	3	4.41	1	1.47	12	17.64	0	0	0	0
Lack of technical skill of technicians to plant and maintain the instructional materials in workshop	0	0	0	0	0	0	0	0	1	1.4	1	1.47	2	2.94	19	27.93	4	5.88
Improper transportation and packing during distribution	0	0	0	0	0	0	2	2.94	0	0	0	0	1	1.47	4	5.88	18	26.45

As shown in Table 7.3, items regarding major causes of frequent damages from most to least of EM and resources of the three colleges, the DH, SH, and trainers responded that lack of handling and lack of utilizing skill of trainees are on the first stage of the causes. On the second stage of cause of frequent damage is lack of follow-up by responsible bodies. 3<sup>rd</sup> stage lack of proper keeping of educational materials by the guardians. 4<sup>th</sup> stage lack of utilizing skill of trainees. 5<sup>th</sup> stage of the respondents replied that lack of proper handling. 6<sup>th</sup> stage each lack of proper storage and lack of proper utilization skill of trainers. 7<sup>th</sup> stage is lack of proper keeping of instrumental materials by the guardians. 8<sup>th</sup> stage is lack of technical skill of workshops. And the 9<sup>th</sup> stage of frequent damage of materials is 18 improper transportation and packing distribution.

One can conclude that lack of proper handling and lack of utilizing skill of trainees are the most frequent damage causes. The average of the respondents frequently damage causes is the lack of proper handling and the least causes of frequent damage of EM's and resources are improper transportation and packing during distribution. From this one can infer that deans, vice deans and the responsible bodies had very less effort to give awareness to trainers, trainees, tools technicians about proper handling, utilizing and the like of EM's.

**Table 8, Respondents responses about purchasing of educational material on time in their colleges.**

What are the reasons for not purchasing educational materials on time?	Responses of Purchasers	
	NO	%
Shortage of budget	10	14.70
Delay to release the budget on the side of finance bureau	19	27.93
Absence of instructional materials in the domestic market	16	23.52
Lack of right quality materials in the local market	16	23.52
Less number of purchasers	5	7.35
Problems of purchasing rules	46	67.62

As shown in the above Table 8, items regarding the purchasing of EM's on time 8 (11.76%) of them agreed on the purchasing of EM's was on time. Most of the respondents 57 (83.82%) suggested that the EM's are not purchased on time 3 (4.4%) of them replied that they do not know.

From the above analysis one can infer that the deans, vice deans, finance administrative and purchasers hadn't relationship and cooperative activities to purchase educational materials that may create disciplinary of schedule for training-learning session.

**Table 9. Respondents responses about specification for instructional materials to be purchased in thier college**

Items regarding the responsibility body for the activity of specification	Responses of DH, SH, trainers and purchaser	
	no	%
Who is the responsible for the activity of specification?		
- Trainers	53	34.19
- Department heads	43	27.74
- Section heads	34	21.93
- Purchasers	7	4.51
- Purchasing committee	11	7.09
- Administrative staff	1	0.64
- Principals	3	4.93
- Trainees	3	1.93
	155	99.96

Table 9 tries to indicate who should be a responsible and participants for the activity of specification in their college, the responses of DH, SH, trainers and purchasers about the activity regarding the responsible body for the activity of specification was that 53 (71.63%) of them replied trainers, 43 (58.10%) departments heads, 34 (45.94%) of them replied that section heads are responsible.

From the analysis given above one can conclude that trainers, department heads (DH) and section heads (SH) have the most significant role in the activities of specification preparation.

**Table 10. Respondents responses about the distribution of Educational Materials in their college**

Items regarding the distribution of educational materials	Responses of DH, SH, Trainers									
	5		4		3		2		1	
	No	%	No	%	No	%	No	%	No	%
The practice of documentation in distribution of educational materials	4	5.88	27	39.70	29	42.64	6	8.82	2	2.94
Timely distribution of educational materials	3	4.41	14	20.58	25	36.75	16	23.52	10	14.70
fairness of schedule for and supplies distribution at the department level	8	11.76	15	22.08	28	41.16	10	14.70	7	10.29
Rate of damages of educational materials and supplies during packaging to distribute	1	1.47	19	27.93	24	35.28	3	19.11	11	16.17

Key 5. 5= excellent, 4= very good, 3= good, 2=fair, 1=poor, DH=department heads, SH= section Head

A brief look at Table 10 above regarding as the DH, SH, and trainers indicated that the degree of distribution of EM's at the department level is excellent. Fairness of schedule for materials and supplies distribution at the department level is excellent. Timely distribution of educational materials is fair. The rate of damages of educational materials and supplies during packaging to distribute were poor.

One can infer that the distribution of EM's does not indicated the fairness in practicing distribution of EM's.

**Table 11. Respondents responses about inventory and control of educational materials in their Colleges**

Items regarding the inventory and control of educational materials to manage	Responses of DH, SH, Trainers, Trainees, main store keepers and TT	
	No	%
Is there any inventory and control of educational materials in your college?		
- Yes there is	66	50
- No there is not	21	14.58
- I don't know	45	31.25

Key=Dh=department head SH=section head TT=tool technicians  
EM=Educational material

As the Table 11 above reveals, according to the inventory and control of EM's to manage, respondents of the three colleges agreed on the availability of inventory and control. From these finding one can conclude that in these three colleges there is inventory and control that may result in identifying the over stock or under stock of EM's and resource of the colleges.

**Table 12. Respondents responses about follow up and control the degree of qualitiveness of Educational materials in stores and workshop**

Items regarding the degree of qualitiveness of educational materials in stores & workshops	Responses of DH,SH&Trainers										
	5		4		3		2		1		Total
	No	%	No	%	No	%	No	%	No	%	
Serviceability of educational materials	5	7.81	25	39.06	24	37.5	5	7.81	5	7.81	64
Durability of educational materials in workshops	8	11.76	28	42.64	24	35.29	6	8.82	1	1.47	68
Relevance of educational materials in workshops & stores	12	18.46	23	35.38	25	38.46	3	4.61	2	3.07	65
Simplicity for users of educational materials	12	17.91	30	44.77	23	34.32	1	1.49	1	1.49	67
Efficiency of educational materials in workshop	8	13.79	14	24.13	23	39.65	11	18.96	2	3.44	58

Key: 5= excellent, 4= very good, 3= good, 2=fair, 1= poor  
 DH=department heads SH=section heads

According to the information obtained in table 12, regarding degree of qualitiveness of EM's in store and workshops, the respondents responded that relevance of educational materials in workshops and stores and

simplicity for using of EM's are excellent. 30(44.77%) of them replied that simplicity of EM's are very good. 25(38.46%) of them relevance of EM's in workshops and stores are good at an average. 11 (18.96%) of them replied that efficiency of EM's in workshops are fair Finally 5(7.81%) of them suggested that serviceability of EM's are poor. From these findings one can conclude that most of the EM's are on the moderate level of qualitativness.

**Table 13. Respondents responses about operational & maintenance guidance manual for new purchased material of training materials in their colleges**

Items regarding the maintenances of educational material	Responses of DH, SH, Trainers and trainees	
	No	%
What is the capacity of maintenance of training materials in you college?		
- very high	1	1.04
- high	10	10.41
- moderate	43	44.79
- low	33	34.37
- I don't know	9	9.37

As indicated in Table 13, items regarding the capacity of maintenance of educational material 43(44.79%) of DH, SH, trainers and trainees respondents that the capacity of maintenance in their college is moderate on the capacity of maintenance in their college. 33(34.37%) of them replied that the capacity of maintenance of training materials low.

**Table 14.1: Respondents responses about handling, utilizing and preventing of educational materials in their College.**

Items Regarding awareness of utilizing and handling of educational materials	Responses of DH, SH, Trainers, TT , MSK & trainees	
	No	%
Is there awareness given to trainers and others by deans, tool persons and main store keepers about handling, utilizing and the measure to be taken when the educational materials are damaged		
- Awareness is given	70	46.05
- Awareness is not given	32	21.05
- Sometimes awareness is given	26	17.10
- I don't know	24	15.78
<b>Total</b>	<b>152</b>	<b>99.98</b>

Key= DH=department heads SH=Section heads TT=Tool Technicians MSK=main store Keepers

As revealed in table 14.1 regarding awareness of utilizing and handling of educational materials 70(46.05) of them replied that awareness is given to trainers, trainees and others about handling utilizing and the measure to be taken when the EM's are damaged. 32(21.05%) of them indicated that awareness is not given, 26(17.10%) of them responded that sometimes awareness is given.

One can conclude from this that even though the response of the respondent's shows highest number in awareness is given comparatively to non aware the managers endeavor is less performance in awareing about handily, utilizing and the measures to be taken when the EM's are damaged during training.

**Table 14.2. Respondents responses about the feeling of responsibilities to**

Items Regarding the feeling of responsibility to prevent and properly, utilize the educational materials	Responses of trainees	
	No	%
- What is the feeling of responsibility to prevent and properly utilize the educational materials in your college?		
- Very high	26	43.33
- High	26	43.33
- Low	6	10
- Very low	2	3.33
Total	60	99.99

**prevent and properly utilize the educational materials in their colleges**

As indicated above in Table 14.2, regarding the feeling of responsibility of trainees to prevent and properly utilize the educational materials, each 26(43.33%) of them responded that very high and high respectively.

From this one can conclude that the degree of responsibility to prevent and properly utilize the educational materials of the trainees is very good.

**Table 15. Respondents responses about efficiency of trainers and tool technicians' in proper utilization and handling of educational materials**

Items regarding efficiency of trainers & tool technicians proper utilization & handling of educational materials	Responses of DH,SH and trainers									
	5		4		3		2		1	
	No	%	No	%	No	%	No	%	No	%
What is the extent of efficiency of trainer's tool technicians & MSK'a about proper utilization & handling of educational materials?										
- Performance of trainers to prevent damage of instructional materials	10	14.70	23	33.82	25	36.76	7	10.29	3	4.41
- Skill of tool technicians	8	12.5	12	18.75	26	40.62	12	18.75	6	9.37
- Skill of trainers regarding maintenance of educational materials in workshop	9	14.28	14	22.22	20	31.74	16	25.39	4	6.34
- In your daily observation extent to which  TVET college conduct preventive maintenance by trainers	6	9.37	16	25	24	37.5	13	20.31	5	7.81
- Operation/utilization of EM trainers	14	20.89	25	37.31	24	35.82	3	4.47	1	1.49
- Utilization/operation of educational materials by tools technicians	9	13.63	21	31.81	25	37.87	6	9.09	5	7.57

Key. 5=Excellent,4=very Good, 3= good, 2= Fair, 1= Poor

According to Table 15, regarding efficiency of trainers and tool person's on proper utilization and handling of educational materials, most respondents rated that 25(36.76%) performance of trainers to prevent damage of EM's and utilization of educational materials by tool technician rated good.

This implies that the efficiency of trainers and tool technician's on proper utilization and handling of educational materials is on the average or medium level of performance. If the efficiency of trainers and tool person's on proper utilization and handling of educational materials that may lead to damage of materials and the durability become less.

**Table 16.1 Respondents response about under stock and overstock, problems solving consultation**

Items regarding under stock and overstock problems	Responses of MSK and TT	
	No	%
Is there any consultation programs with the responsible bodies to solve the under or overstock problems in your colleges.		
- Yes, we have consultation meeting	13	81.25
- Sometimes , we have consultation meeting	3	18.75
- No, we do not have consultation meeting	0	0

Key=msk=main store keepers TT=Tool technicians

As Table 16.1 shows regarding consultation program to solve under stock and over stock problem of the stores, the main store keepers and tool technicians responded as follows. 13(81.25%) of them replied that they have consultation time with the responsible bodies when the over stock and under stock happened.

**Table 18. Respondents responses about buy or make of teaching materials**

Items regarding buy or make of training materials	Responses of trainees	
	No	%
Are you buying or making the most necessary materials like chairs, table, dusters, and blackboards in your colleges?		
- we make it	4	
- we buy it	10	7.14
- in both systems	42	17.85
		75
Total	56	99.99

According to Table 18, regarding buy or make of training materials the responses of trainees about 42(75%) of them replied that they used both by making and buying necessary educational materials like tables, chairs, and blackboards.

This implies that making materials in their colleges has an advantage to minimize cost expenditure of their colleges.

### **19. Responses of deans and vice deans regarding the interview**

1. About the needed assessment they replied that there is need assessment before purchasing process is done. The need assessment process is done:

1<sup>st</sup> by collecting the need of materials for the required budget year by each department.

2<sup>nd</sup> by checking the stock that either the materials are there or not and with what amount the materials are in the stock.

2. About the budget allocation sufficiently, all the respondents strongly agreed on the insufficiency of the budget allocated. Because the price of the materials are increasing from time to time.

3. Regarding the relationship with store keepers in relation to under and overstock. The respondents clearly indicated that the store has its own store cards. So that, by checking the stock card it is easy to see the scarcity, before overstock materials were existing. But nowadays training materials

were not stored. Before purchase is done the deans and vice deans with MSK's check the stores. So they do have strong relationship.

**4.** Regarding effectively utilization of EM's the respondents answered that not absolutely used. In some department there are effective utilizing and in some others is in the reverse way. They replied that they can say it is in a goods standard even if there are still minor problems.

**5.** Regarding the materials sufficiently available, respondents responded that, it is not sufficiently available but more or less it is sufficient. It depends on the market price because the budget allocated may not purchase as needed for the training materials.

**6.** About the awareness of how to utilize the educational materials, the respondents replied that yes awareness is given, even though the responsibility lay on trainers the deans and vice deans also increase awareness in different occasions.

**7.** Regarding the misusing and manage of educational materials the respondents replied that there is negligence of trainees. Less skill, no follow up how to use them, less awareness given of store keepers and tool technicians.

**8.** Regarding the guidelines of resources management, the respondents responded that working policies, working procedures are written in brochures, but not as manual documents. Beyond this nowadays there is a KAIZEN. KAIZEN has a significant importance on how to manage the workshops.

**9.** According to inventory and control of materials the respondents replied that yes there is when needed before the annual programmed schedule. Before purchased for what purpose they want to utilize is to be ask every department. So, if they didn't use it by checking it is possible to know the available materials or the scarcity of materials.

**10.** Regarding the measures taken during misusing and the improper utilization of materials, respondents replied that by creating awareness for both the storekeepers and the users how to utilize and handle properly are given by deans and vice deans

The subjects of the study were 68 DH, SH, trainers, 60 trainees, 6 purchasers, 19 tool technicians and main store keepers, 7 deans and vice deans from the three sample colleges, prior to the actual study, the questionnaires developed were piloted and necessary corrections were made before administration. 164 questionnaires were dispatched. 16 (90.66%) MSK and TT, 68 (97.01%) DH, SH and trainers, 60 (90.91%) trainees, 6 (100%) purchasers and 7 (77.77%) deans and vice deans have returned the questionnaires realties. finally from 164 respondents 157 respondents remained the data gathered were analyzed using statistical tools such as percentage Depending on the nature of the data gathered percentage analysis were employed to secure the data throughout the study, finally the study come up with up with the following findings.

#### **4.1 Summary of the major findings**

Based on the data obtained and the analysis made using statistical tool, the following findings were made.

1. According to sex 108 (68.78%) of the respondents were dominantly male and 49 (31.22%) were female. From the male respondents 7 (100%) of them were deans and vice deans.

The majority of the respondents 51 (32.48%) age is ranged from 19-23 which indicates that most of the respondents were youngsters and the least rang of age were 39-43 years comprises 6 (3.82%).

Regarding the qualification of the respondents 54 (34.39%) of them are graduated with first degree. Least of the respondents which comprised 3 (1.91%) are TVET diploma graduates.

Most of the respondents 49 (0.51%) have served 1-5 years and least 20 (20.61%) served above 11 years

2. As the study shows in the three TVET colleges trainers 33 (48.52%) are the most participants in educational material planning activities, where as administrative staff about 16(23.52%) of them are least participants.

-As the study indicates 25(36.76%) of the respondents have agreed on the effectiveness on implementation status depending on annual planning is very good.

But about 2 (2.98%) of the respondents indicated that clarity and simplicity of planning is poor.

3. The majority agreed on the availability of the procedures policies, rules of guide lines of resource management and purchasing.

4. To carry out the training process the training materials are moderately adequate. It indicates that EM's are in sufficient to run the training process smoothly.

As the study reveals clearly the current condition of stores equally respondents responded that some EM's faced under stock and some educational materials are on overstock condition. The physical facilities that help teaching and learning processes like table's buildings and chairs are highly available where as tools in workshops and electric system not available.

5. Tables and chair have encountered very high damage.

- Major causes of damage to EM's is that lack of proper handling & lack of utilizing skills of trainees is the first and major cause for material damage whereas the least reason for damage is that improper transportation and packaging during distribution.

6. As the finding indicated most of the respondents 57(83.82%) of them replied that the EM's are not purchased on time

-The reasons not to be purachased on time are problems of purchasing rules.

7. The distribution of EM's is very good in the practice of documentation in distribution of EM's where as the practice of documentation in distribution of EM's and fairness of schedules for materials and supplies distributing at the department level are moderately good.

-The fairness distribution of EM's is low.

**8.** The respondents suggested that the EM's of these college practice inventory and control in order to manage the resource.

9. According to the findings from the data gathered respondent's suggested that the maintenance of EM's are moderately done. Some respondents replied that low performance of maintenance was observed.

-According to low capacity of maintenance the respondents responded that less qualified tool technicians and absence of skill development training for workshop technicians about the maintenance of new arrival EM's created low performance or capacity of maintenance.

-The respondents about 70 (48.61%) of them highly agreed that awareness is given how to utilize and handle the EM's.

-The feeling of responsibility to prevent and properly utilize the EM's in their colleges was very high.

-Regarding problems occurred during the training session is that wastage of educational resources are mostly seen on raw materials in shops during the training session.

-Regarding the codification of educational materials in stores the study indicated that resources in stores are kept by arranging in ordered way and given serial numbers according to their types or items on shelves

10. Majority of respondents replied that the most necessary materials like chair, table, duster, and black boards are both made and bought for use in their colleges.

## 4.2 Conclusions

Educational materials and supplies are used to accomplish the learning and training processes of TVET College. Since the objective and target of TVET colleges is to produce practically efficient in the working world and professionally competent citizens, ready to be employable or self-employable. To reinforce and facilitate the implementation of the training process of TVET colleges, effective and efficient utilization plus properly managing of EM's and supplies is the only option. For these purpose the deans and vice deans, administrative and finance officers, purchasers, storekeepers, trainers and responsible bodies requires skills, experiences, commitment and participation is very necessary. From the findings obtained from the study some precise and short conclusion drawn as follows:

- As revealed in the findings trainers' are the most participants in educational materials planning activities that helps the availability of EM's. Because trainers are the core role playing in the training process the participation of trainers is very vital.
- As revealed in the findings the clarity and simplicity of effective planning of educational materials is poor. But some respondents replied that the distribution fairness of EM's is low
- The findings revealed that most of the respondents agreed on the availability of guidelines, policy and procedures of resources management and purchasing EM's of their colleges. To effectively manage and utilize material resources, clear, concise guideline, rules and policies as a whole need to be available in colleges.
- Findings showed that the functioning performance of managers in disposal management of EM's is moderately in good condition, but regarding planning, selection and handling of EM's is very poor. That indicates the managers functioning performance in planning, selection and handling of EM's must take due attention. Because

missing to plant, select and handling of EM's the objective of colleges fell under question.

- As the finding depicts the training materials are moderately adequate. It indicates that the EM's are insufficient and under stock happened that may create an obstacle to run the training process smoothly.
- As the findings depicted clearly the physical facilities that aid as EM's for training like tables, chairs, computers and water pipes are frequently damaged. The findings indicated that the cause of the damage of EM's and physical facilities was that lack of proper handling and lack of utilizing skills of trainees and trainers.
- As revealed in the findings, EM's are not purchased on time, because of purchasing rules and the approving of purchase requisitions had it's dalliance. The participation of the purchasing committee in the activity is sometimes.
- According to specification and need assessment the findings indicates that there is specification preparation and need assessment of educational materials before it is purchased are done properly.
- Some respondents replied that the distribution fairness of EM's is low.
- The findings according inventory and control of EM's management most respondents revealed that, it is practiced in their colleges when necessary only. Here if it is to be practiced when necessary only the miss plan and damage of materials may be created up to uncontrollable stage.
- According to the findings the maintenance of EM's of their colleges are less performed, and it is low. The reason given by the respondents is because of less qualified tool technicians and absence of skill development training for workshop technicians about the maintenance of new arrival EM's.
- The findings indicated that awareness of utilizing and handling of EM's is given, so the feeling of responsibility to prevent and properly utilize the EM's in the three colleges of the respondents is very high.

- As the findings revealed, the efficiency of trainers to prevent damage of EM's and proper utilization or operation of EM's are on good condition.
- Findings depicted that wastage of educational resources are mostly seen regarding raw materials in shops during the training session.
- According to codification the findings depicted that EM's and supplies in stores are kept by arranging in ordered way and given serial numbers according to their type or item on shelves.
- According to the finding about buy or make of EM's the respondents indicated that the most necessary materials like chairs, tables, duster and the blackboards are both made and bought for use in their colleges.

### **4.3 Recommendations**

In light of the findings and conclusion of the study, it can be supposed that the following measures may be improve or solved in the management of materials and supplies in the colleges of Entoto TVET, Addis Abab Tegnared TVET college and Genral Winget TVET college.

- Deans and vice may attempt to give some attentions to clarify and simplicity of effective planning of the EM's.
- As the findings show the managers functioning performance in planning, selection and handling of EM's is very poor. So the deans, vice deans would take measures carefully in properly planning and selection of the needed EM's only and the mechanism of handling EM's and supplies by giving awareness to the performing bodies.
- In order to accomplish the objective and targets of the TVET colleges and to run the practical training, the management bodies are expected to perform and, assessment of materials to fulfill the shortage of training materials unless and otherwise the training process couldss not continue.
- The managerial bodies are expected to aware the trainers how to properly handle the training materials and give some hints of utilizing the materials to solve the skill gap of utilizing materials.

- The deans and vice deans would try their best to alleviate the governmental purchasing rules that are creating absence of performance, increase of price and absence of qualitative materials in domestic markets.
- As indicated in the summary and conclusion of the study some EM's are not fairly distributed in some departments. So deans and vice deans should attempt to follow-up the main store keepers and tool technicians during distributing of EM's and supplies and create systems.
- The management should arrange the inventory and controlling systems of EM's,  
Otherwise, the misplacing and damage of materials may increase up to uncontrollable stage.
- To alleviate the low performance of maintenance, the managers should try to work hard in upgrading the less qualified tool technician by giving skill development training about the maintenance of new arrival EM's.
- In most of the sample colleges the necessary materials like table, chairs, duster, and backboard must be made or produced in their colleges than buying in order to minimize cost.

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**ADDIS ABABA UNIVERSITY**  
**SCHOOL OF GRADUATE COLLEGE OF EDUCATIONAL AND**  
**BEHAVIORAL STUDIES**

**Questionnaire**

I would like to express my appreciation in advance, for taking your time to fill the following questionnaire. The main purpose of this questionnaire is to get and achieve reliable information on the present or current practices of management bodies and other responsible bodies that encountered problems in managing educational materials and supplies. Also identifying the major challenges in purchasing, distribution, utilization, inventory and controlling, codification, maintenance and handling store management of instructional materials and supplies in selected governmental technical and vocational educational and training colleges in Addis Ababa, and a research conducted for the fulfillment of MA in management of vocational educational in Addis Ababa university. Thus, your genuine response will help the study to provide reliable and valuable suggestions and recommendations.

**Section 1: General Directions for department heads, sections heads and trainers**

1. No need of writing your name
2. Mark “√” in the box of your alternative answers.
3. Please give one or more answer to each closed ended items as appropriate.
4. Please give your short and precise response to the open-ended questions, without leaving any questions unanswered.

**Section 2: personal information**

1. Name of the college: \_\_\_\_\_

2. Sex: A. Male  B Female

3. Age :

A. 19-23 years  B 24-28 years

C 29-33 years  D34-38 years

E 39-43 years  F 44-48 years

G Above 48 years

4. Level of educational qualification

A. High school completed

B 10<sup>+2</sup>

C. 10+3

D level 3

E. level 4

F TVTT diploma

G. college diploma

H.BA/BSc

I. MA/MSc

5. Years of service in TVTET colleges

A. 1-5 years

B. 6-10 years

C 11 years and above

6. Your current position or job

\_\_\_\_\_

\_\_\_\_\_

## Appendix I

### Questionnaire for Department Heads, Section Heads and Trainers

1. please indicate who should participate in educational resource planning (you can chose more than one option)
  - Finance Administrative
  - Trainers
  - Department heads and section heads
  - Both department heads and section heads with trainers
  - Both administrative staff and trainers
 If other, please specify \_\_\_\_\_
2. please indicate your response to the following items according to effective planning by the numbers indicated 5 for excellent, 4 for very good, 3 for goods,2 for fair and 1 for poor

No	Items regarding effective planning	5	4	3	2	1
2.1	Objective of resource management planning					
2.2	Clarity and simplicity of planning					
2.3	Implementation status depending on annual planning					
2.4	Regular staff meeting					

3. Please, indicate whether the institution has educational materials and equipment management guidance.
  - Available       Not available       I don't Know
4. Please rate the extent to which the educational materials and recourse management functions are performed in your TVET College.  
5 excellent, 4 very Good, 3 good, 2 Fair, 1 very poor

No	Items regarding material and equipment function	5	4	3	2	1
4.1	Planning of educational materials					
4.2	Selection of educational materials					
4.3	Purchasing of educational materials					
4.4	Distribution of educational materials					
4.5	Utilization of educational materials					
4.6	Handling of educational materials					
4.7	Maintenance of educational materials					
4.8	Inventory control of educational materials					
4.9	Storage management of educational materials					
4.10	Disposal management of educational materials					

5. Please, indicate the adequacy of materials and equipment recourses to carry out the training in your TVET college.

Highly Adequate

Moderately Adequate

Less Adequate

If any other please specify \_\_\_\_\_

6. Are interactional materials and equipment purchased on time in your college?

Purchase on time  not purchased on time  I do not know

7. If your response to no "6" is "No", what are the reasons? You can give more than one response.

7.1 Shortage of budget

7.2 Deliance to release the beget on the side of finance bureau

7.3 Shortage of instructional materials in the domestic market

7.4 Lack of right quality materials in the local ma

7.5 Less number of purchasers

7.6 Problems of purchasing rules

If other, please specify \_\_\_\_\_

8 Does your college prepare specification for instructional materials and equipment to be purchased?

Prepare specification  not prepared   
I do not know

9 If your response to number "8" is "prepared" who is responsible for the activity of specification? (you can choose more than one option).

- 4.1 Trainers
- 4.2 Department head
- 4.3 Section heads
- 4.4 Purchasers
- 4.5 Purchasing committee
- 4.6 Administrative staff
- 4.7 Principals
- 4.8 Trainees

If other, please specify \_\_\_\_\_

5 What is the extent of educational materials regarding distribution in your college? 5 Excellent, 4 very Good, 3 good, 2 fair, and 1 poor

No	Items regarding distribution of materials and supplies	5	4	3	2	1
10.1	The practice of documentation in distribution of educational materials					
10.2	Timely distribution of educational materials from TVET agency					
10.3	Fairness of times or schedules for material and supplies distribution at the department level					
10.4	Rate of damages of educational materials and supplies during packaging to distribute					

6 Is there inventory management to control the instructional materials and supplies in your college?

Yes  No  I do not know

7 How do you rate the quality materials and in stores in the workshops of your college? 5 excellent, 4 very good, 3 good, 2 fair, 1 poor.

No	Items regarding inventory control and store management	5	4	3	2	1
12.1	Serviceability of educational materials and Supplies in workshop					
12.2	Durability of educational materials and supplies					
12.3	in workshop					
12.4	Relevance of educational materials and supplies in workshop					
12.5	Simplicity for using of educational materials and supplies in workshop					
	Efficiency of educational materials and supplies in workshop					

8 What is the capacity of your college regarding the maintenance of the training materials?

Very high  high  moderate high  low

9 If your response to number "13" is "low" what are the reasons from the following options? You can responds more than one option

9.1 less qualified tool technicians

9.2 absence of skill development training for trainers

9.3 absence of skill development training for workshop technicians about the maintenance of new arrival instructional materials

If other, please specify \_\_\_\_\_

10 how do you rate the efficiency of trainers and tools persons in your college regarding the proper utilization and handling of materials ?5 exxellent.4 very good,3good, 2fair,1 poor

No	Items regarding utilization and handling	5	4	3	2	1
15.1	Performance of trainers to prevent damage of educational materials					
15.2	Skill of tool technicians					
15.3	Skill of trainers regarding maintenance of educational materials in the workshops					
15.4	In your daily observation extent to which TVET college conduct prevent maintenance of materials					
15.5	Operation/utilization of educational materials by					
15.6	trainers Utilization/operation of educational materials by tool person					

- 11 what problems occurred during the training session in relation to training material and recourse handling in your college? You can use more than one option in your response.
- 11.1 wastage of educational recourse are mostly seen regarding raw materials in workshop
  - 11.2 Sometimes instructional materials and supplies are stolen from the workshop
  - 11.3 Some quality educational materials and supplies in workshop are changed with poor quality of the same type of materials
  - 11.4 Some quality educational materials in store are changed with the same type of poor quality materials
  - 11.5 Some quality educational materials are broken because of improper handling

If other, please specify \_\_\_\_\_

- 12 Some educational materials and equipments are listed below which of these are frequently damaged in your college? 5 Highly Damaged, 4 moderately damaged, 3 damaged, 2 not damaged, 1 I do not know.

No	Items regarding material and equipment damages	5	4	3	2	1
17.1	Computers					
17.2	Lap tops					
17.3	Tables and chairs					
17.4	Machines in the workshop					
17.5	Materials in the workshop					
17.6	Materials in hair dressing classes					
17.7	Tools in workshops					
17.8	Electrical systems					
17.9	Water pipes					
17.10	Raw materials in workshops					
17.11	Raw materials in stores					
17.12	Buildings					
17.13	Text books					
17.14	Reference Books					
17.15	Printers and photocopiers					

13) As mentioned above frequent damage reveals on educational material. So rank from the most to the least major causes for the materials and equipment damage?

- 13.1 lack of proper storage facility
- 13.2 Lake of proper handling by trainers
- 13.3 Lack of utilization skill of trainers
- 13.4 Lack of effective and efficient store management
- 13.5 Lack of utilizing skill of trainees
- 13.6 Lack of follow-up by responsible bodies
- 13.7 Lack of proper keeping of instructional materials by the guardians
- 13.8 Lack of technical skill of technicians to plant and maintain the instructional materials in workshop
- 13.9 Improper transportation and packing during distribution

14 What are the sources of educational materials and supplies for your college?(you can mark on more than one option)

- 14.1 from government
- 14.2 from donor(NGO's)
- 14.3 from income generating of the college

15 Is there awareness given to trainers about handing and utilizing of educational materials?

Awareness was given  awareness not given   
I do not know

**Appendix II**  
**Interviews for Deans and Deputy Deans**

1. Is there any need assessment in your college before purchasing process is done?
2. Is the budget allocated to your college sufficient for purchasing training materials?
3. What is your relation with storekeepers regarding overstock, under stock or any other problems to solve together?
4. Does the materials and supplies of your college efficiency utilized during training?
5. Does the materials and supplies of your college available sufficiently?
6. Does your college provide awareness the way how to utilize the instructional materials and equipments?
7. What are the main reasons for misusing and damages of material resources in your college?
8. Do you have a guideline regarding the management material resources?
9. Is there inventory control of the stores?
10. What measures have been taken to tackle the misusing and improper handling of the materials and supplies in your college?

**አዲስ አበባ ዩንቨርሲቲ የድህረ ምረቃ  
የትምህርትና የሥነ-ባህሪ ጥናቶች ኮሌጅ**

በቅድሚያ ጊዜዎን መስዋት በማድረግ ይህንን መጠየቅ በመሙላት ካደረጉልኝ ትብብር ልባዊ የሆነ ምስጋናዬን አቀርባለሁ። የዚህ መጠየቅ ዋና ዓላማ በአሁኑ ሰዓት በኮሌጅዎ ውስጥ ያለውን የማሰልጠኛ ጥሬ ዕቃዎችና መገልገያ ቁሳቁሶች በመቆጣጠርና በማስተዳደር በኩል የበላይ አስተዳዳሪዎች እና በቀጥታ የሚመለከታቸው አላካት የሚያጋጥማቸውን ችግርና የሚወስዱትን የመፍትሄ ሳብ ለማወቅ ነው። ችግሮችም በመለየት እርሶ በሚሰጡት ትክክለኛ መረጃና በመንተራስ መፍትሄ የሚሆኑ መንገዶችን ለመጠቀም ስለሆነ የርሶ ትክክለኛ መልስ በጣም አስፈላጊ መሆኑን በቅድሚያ እገልጻለሁ። ጥናቱም ለኤምኤ የመመረቂያ ጽሁፍ ሆኖ የሚያገለግል ስለሆነ የርሶ ትክክለኛ መልስ በጣም አስፈላጊ መሆኑን በቅድሚያ በትህትና እገልጻለሁ።

አመሰግናለሁ!!

ክፍል ሀ አጠቃላይ መመሪያ ለዕቃ ግዥዎች፣ ለሰልጣኞች፣ ለዋና ስቶር ኃላፊዎችና ቱል ቴክኒሻኖች

1. ስምዎን መፃፍ አያስፈልግልኝም
2. መልስ ሲሰጡ እባክዎ "✓" ምልክት ይሰጡ
3. አማራጭ ጥያቄዎች ሲመጡ እደአስፈላጊነቱ አንድና ከአንድ በላይ መልስ የሚሰጥባቸው ካሉ መስጠት ይቻላል
4. ለጥያቄዎቹ አጭርና ግልፅ መልስ በመስጠትና እንዲሁም ያልተመለሱ ጥያቄዎች እዳይኖር ቢተባበሩን።

ክፍል ለ የመላሹ ሁኔታ (ፐርሰናል አንፎርሚሽን)

1. የኮሌጅዎ ስም -----
2. ሦታ                      ሀ. ወንድ                       ለ. ሴት
3. እድሜ                      ሀ. 14-18 ዓመት
- ለ. 19-23 ዓመት
- ሐ. 24-28 ዓመት
- መ. 29-33 ዓመት
- ሠ. 34-38 ዓመት
- ረ. 39-43 ዓመት

ሰ. 44-48 ዓመት

ሸ. ከ48 ዓመት በላይ

4. የትምርት ደረጃ

ሀ. ሁለተኛ ደረጃ ያጠናቀቀ

ለ. 10+2 ወይም ሌቭል 3

ሐ. 10+3 ወይም ሌቭል 4

መ. የቴክኒክና መ.ያ ዲፕሎማ

ሠ. የኮሌጅ ዲፕሎማ

ረ. የአንደኛ ዲግሪ ምሩቅ

ሰ. የማስተርስ ምሩቅ

5. በኮሌጅ ውስጥ የአገልግሎት ዘመን

ሀ. ከ1-15 ዓመት

ለ. ከ6-10 ዓመት

ሐ. ከ11 ዓመት በላይ

6. የስራ ኃላፊነት -----

7. በተራ ቁጥር 6 በተጠቀሰው የስራ ኃላፊነት ቆይቦት ዘመን -----

Appendix III

ዋና እስቶር ኃላፊዎችና ቱልጥርሰን (ቱል ቴክኒሻኖች) የሚመልሱት መጠይቅ

1. በኮሌጃችሁ ውስጥ የማሰልጠኛ ዕቃዎችና መገልገያ ቁሳቁሶች ቆጠራ ይካሄዳል?

አዎን ይላሄዳል  አይላሄድም  ምንም አላውቅም

2. ለተ.ቁ "1" መልስህ/ሽ "ይካሄዳል" ከሆነ በየሰንት ጊዜያቱ ይካሄዳል?

2.1 በዓመት አንደ ጊዜ

2.2 በዓመት ሁለት ጊዜ

2.3 ባስፈለገ ጊዜ

3. ለመደበኛ ፍጆታ አመቺ ይሆን ዘንድ ከሚገባው በላይና ከሚገባው በታች እስቶር ላይ ያሉ ዕቃዎች ችግር ለማቃለል ከሚመለከተው አካል ጋር ምክክር ታደርጋላችሁ?

እናደርጋለን  አልፎ አልፎ እንደርጋለን  አናደርግም

4. በዕቃ ግምጃ ቤት (ስቶር) ውስጥ በቆጠራና በቁጥጥር ወቅት በዕቃዎች ላይ የቁጥጥር መዛባት ሲመጣ ሊወሰድ የሚገባው ሁኔታ ምንድን ነው ብለው ያስባሉ?

ማሳሰቢያ:- ከአንድ በላይ መልስ መስጠት ይቻላል

4.1 ልዩነቶች በተቻ መጠን በፍጥነት ማስተካከል

4.2 ምክንያቱን ለይተው ካወቁ በኋላ በትክክለኛው ሰዓት ፈጣን ውሳኔ መስጠት

4.3 የሚመለከታቸው ሰዎች ኃላፊነቱን መወጣት

4.4 በቀላሉ ማለፍ

4.5 ምንም መፍትሄ መስጠት አይቻልም

5. በዕቃ ግምጃ ቤት (እስቶር) አስተዳደር የተመረቁነዎት?

5.1 አዎን ምሩቅ ነኝ

5.2 ብዙ ጊዜ ስልጠና ወስጃለሁ

5.3 የተወሰኑ ጊዜያት ስልጠና ወስጃለሁ

5.4 ምንም ስልጠና አልወሰድኩም

6. የዕቃ መጋዘን አስተዳደሮች ስለመጋዘኖቹ የዕለት ተለት አንቅስቃሴ ላይ ወሳኝና ቀጥታ ተሳታፊ ናቸው?

- 12.5 ማስተር የዕቃ መቆጣጠሪያ ፎርም
- 12.6 ማስተር የዕቃ ማዋሻ ፎርም
- 12.7 የዕቃ ዝርዝር ሪፖርት ማቅረቢያ
- 12.8 አቅርቦት መመዝገቢያ ፎርም
- 12.9 የማቅረቢያ ፎርም

13. ከዕቃ ግዥ ጋር በምን ሞዴል ትረክባላችሁ?

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14. ከበላይ ኃላፊዎች ጋር ስለሚያጋጥሙ የሀብት አጠቃቀምና አስተዳደራዊ ችግሮች ለመፍታት የምታደርጉት ግንኙነት ምን ያህል ነው?

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15. ለሁሉም የትምህርት ዘርፎች ፍትሃዊ የስልጠና ዕቃዎች ስርጭት አለ ብለው ያምናሉ?

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Appendix IV

በዕቃ ግዥዎች የሚመለሱ መጠይቆች

1. ኮሌጃድሁ ለግዥ ለሚቀርቡ የማሰልጠኛ ዕቃዎችና መገልገያ ቁሳቁሶች ስፔሰሬኬሽን ያዘጋጃል?  
ያዘጋጃል  አያዘጋጅም  ምንም አላውቅም
2. ለተራ ቁጥር "1" መልስዎ "ያዘጋጃል" ከሆነ ይህንን የማሰልጠኛ ቁሳቁሶች ስፔሰሬኬሽን ለዲፓርትምንቶቹ የሚመርጠው ማን ነው?  
ማሳሰቢያ:- ከአንድ በላይ አማራጭ መጠቀም ይቻላል  
2.1 አሰልጣኞቹ   
2.2 ሰልጠኞቹ   
2.3 ዲፓርትመንትሂድ   
2.4 ሴክሽን ሂድ   
2.5 ዕቃ ግዥዎችና የዕቃ ግዥ ኮሚቴዎች   
2.6 የአስተዳደር ሰራተኞችና አለቆች
3. የግዥ ስርዓቱ በኮሌጃችሁ ውስጥ እንዴት ነው?  
3.1 ጥቂት በጥቂት ግዥ   
3.2 መጠነ ብዙ ግዥ   
3.3 በተማኪ መልክ የሚካሄድ ግዥ
4. በኮሌጃችሁ ውስጥ የግዥ መጠየቂያ ላይ ለማዕደቅ ወይም ለማስፈቀድ የፊርማ መዘግየት ሁኔታ ይታያል?  
ይታያል  አይታይም  አልፎ አልፎ ይታያል
5. የተራ ቁጥር "4" መልስዎ "ይታያል" ከሆነ ለመዘግየቱ ምክንያት ምን ይሆን?  
ማሳሰቢያ :- ከአንድ በላይ አማራጭ መጠቀም ይቻላል  
5.1 የስራ ኃላፊዎች በስራ ስለሚጠመዱ   
5.2 የበጀት እጥረት   
5.3 የማስተባባር እጥረት ስላለ
6. የዕቃ ግዥ ክፍልን ስራ ቅልጥፍና የሚረዳ ስልጠና ይሰጣል  
ይሰጣል  ምንም አይሰጥም  አልፎ አልፎ ይሰጣል
7. በኮሌጃችሁ ውስጥ የመንግስት የግዥ ፖሊሲና መመሪያ አለው  
አለው  ምንም የለውም  ምንም አላውቅም

8. የዕቃ ግዥ ኮሚቴዎች ዘወትር እየተሰበሰቡ የግዥውን እንቅስቃሴ ያግዛሉ  
 ያግዛሉ  አልፎ አልፎ ይሰበሰባሉ  ምንም አላውቅም
9. ዋናው የዕቃ ግምጃ ቤት (እስቶር ኪፐር) ምንም ዕቃ እደሌለውና እንዲገዛ  
 በተጠየቀ ጊዜ በፍጥነት ይገዛለታል  
 በጣም ፈጣን ነው  ብዙም አይዘገዩም  በጣም ይዘገያል
10. በኮሌጃችሁ ውስጥ በጥራት መለኪያ (ኳሊቲ ስታንደርድ) መመሪያዎች ይታወቃሉ  
 ይታወቃሉ  አይታወቁም  ምንም አላውቅም
11. በኮሌጃችሁ ውስጥ "5ቱ ትክክለኛ" ጥራት ያላቸው (ፋይና ራይት ኳሊቲስ)  
 የማሰልጠኛ ዕቃዎች ይገዛሉ ብለህ/ሽ ታምናለህ/ሽ  
 ይገዛሉ  አልፎ አልፎ ጥራት የሌላቸው ይገዛሉ   
 ብዙዎቹ ጥራት የላቸውም  ምንም አላውቅም
12. አዲስ የተገዙ ዕቃዎች ወደ ኮሌጅ እንዲገቡ ወዲያው የጥራት ፍተሻ  
 ይደረግላቸው  
 ይደረግላቸው  አይደረግላቸውም  ምንም አላውቅም
13. የተገዛው ዕቃ ከዋናው ግምጃ ቤት ጋር የምትረካከቡት በምን ሰነድ ነው  
 በሞዴል -----
14. የተገዙ ዕቃዎች አጠቃቀም ዝርዝር ሰነድ በግዥ ጊዜ ይሰጣል  
 ይሰጣል  የእያንዳንዱ ዕቃ ይሰጣል  ምንም አላውቅም
15. በግዥ ስርዓት ውስጥ ያጋጠምዎት ችግር ምንድን ነው ለዚህ የሰጡት  
 መፍትሄስ  
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Appendices v

ስልጣኞች የሚመልሱት መጠይቅ

1. ኮሌጃችሁ ውስጥ የጥራት መለኪያ (ኳሊቲ ስታንደርድ) አለ?  
 አለ                       የለም                       ምንም አላውቅም
2. ኮሌጃችሁ ውስጥ አጠቃላይ ለጥራት ያለህ ግንዛቤና የአገልግሎት አሰጣጥ ምን ያህል ነው?  
 ጥሩ ነው                       ጥሩ አይደለም                       ምንም አላውቅም
3. ለስልጠና የሚያገለግሉ ትክክለኛና ጥራት ያላቸው ጥሬ ዕቃዎ ይገዛሉ ብለህ ታምናለህ?  
ይገዛሉ                       አይገዙም                       ምንም አላውቅም
4. ለማስተማሪያ የሚገዙ ዕቃዎች ረጅም አገልግሎት የሚሰጡ ናቸው?  
 ናቸው                       አይደሉም                       ምንም አላውቅም
5. ኮሌጃችሁ ውስጥ ስለ ጥራት ምንነትና ጉዳይ ለሚመለከታቸው አካላት ስልጠና ይሰጣል?  
 ይሰጣል                       አይሰጥም                       አልፎ አልፎ
6. ኮሌጃችሁ ውስጥ የማሰልጠኛ ዕቃዎች ቁጥጥርና ቆጠራ ይካሄዳል?  
 ይካሄዳል                       አይካሄድም                       አላውቅም
7. ለተራ ቁጥር " 6 " መልስህ " ይካሄዳል " ከሆነ በየሰንት ጊዜያቱ ይካሄዳል?  
 7.1 በዓመት አንድ ጊዜ  
 7.2 በዓመት ሁለት ጊዜ  
 7.3 በስፈለገ ጊዜ ብቻ
8. በጣም አስፈላጊ የሆኑ አንደ ወንበር፣ጠረጴዛ፣ዳስተርና ጥቁር ሰሌዳ የመሳሰሉትን ኮሌጃችሁ ውስጥ እየሰራችሁ ነው የምትጠቀሙት ወይስ እየገዛችሁ?  
 እየሰራን                       አንገዛለን                       በሁለቱም ዘዴ አንጠቀማለን
9. ኮሌጃችሁ ውስጥ ዲኖች እና የሚመለከታቸው አካላት ስለ ማሰልጠኛ ዕቃዎችና ማሸኖች አጠቃቀም ሁኔታ የግንዛቤ ማስጨበጫ ቅስቀሳ ያደርጉላቸዋል?  
 ያደርጉልናል                       አያደርጉልንም                      አልፎ አልፎ ያደርጉልናል
10. በኮሌጃችሁ ውስጥ ዲኖችና የሚመለከታቸው አካላት ስለ ማሰልጠኛ ዕቃዎችና ማሸኖች ጥንቃቄ እና አያያዝ የግንዛቤ ማስጨበጫ ቅስቀሳ ያደርጉላቸዋል?  
 ያደርጉልናል                       አያደርጉልንም                       አልፎ አልፎ ያደርጉልናል

11. የተራ ቁጥር " 10 " መልሱ " የደርጉልናል" ከሆነ የማሰልጠኛ ቁሳቁሶች አደጋ ሲያጋጥማቸው ምን አይነት እርምጃዎች መወሰድ እንዳለባቸው በኮሌጁ ዲናች በኩል ችሏል?

ይነገራል  አይነገርም  አልፎ አልፎ  ምንም አላውቅም

12. በሰልጣኞች በኩል የማሰልጠኛ ቁሳቁሶችና ማሸኞችን  በበቅና በአግባቡ  በመጠቀም በኩል ያላቸው የኃላፊነት ስሜት ምን ያህል ነው? በጣም ከፍተኛ ነው መካከለኛ ነው  ዝቅተኛ ነው  በጣም ከፍተኛ ነው

13. በየት/ት ዘርፋችሁ መሰረት የማሰልጠኛ ቁሳቁስ ስርጭት ፍትህዊነት ምን ያህል ነው?

በጣም ከፍተኛ ነው  ከፍተኛ ነው  መካከለኛ ነው  ዝቅተኛ ነው

14. ከሚከተለኩት ቁሳቁሶችና መገልገያ ዕቃዎች ውስጥ በበቂ ሁኔታ የሚገኙትን አመልክት፡፡ በብዛት የሚገኙ 5፣ በመጠኑ የሚገኙ 4፣ ከፍተኛ እጥረት ያለባቸው 3፣ መጠነኛ እጥረት ያለባቸው 2፣ እና ምንም የማይገኙ 1 በማለት "✓" አመልክቱ

ተ.ቁ	መገልገያ ቁሳቁሶች	5	4	3	2	1
14.1	የኮሌጁ ሕንፃዎች					
14.2	ጠረጴዛዎች					
14.3	ወንበሮች					
14.4	ዎርክቮፖች					
14.5	ዎርክቮፖች ውስጥ ያሉ ማሸኞች					
14.6	ዎርክቮፖች ውስጥ ያሉ መሳሪያዎች					
14.7	ዎርክቮፖች ውስጥ ያሉ ጥሬ ዕቃዎች					
14.8	የኤሌትሪክ ቁሶች (የኤሌትሪክ መስመሮች)					
14.9	የውሃ ሲንቧዎች					

14.10	ጥቁር ሰሌዳዎች					
14.11	ዋይት ቦርድስ					
14.12	ቤተ መጽሐፍት					
14.13	ክሊኒኮች					
14.14	ኮምፒውተሮች					

15. ከሚከተሉት ቁሳቁሶችና መገልገያ ዕቃዎች ውስጥ በስራ ሂደት ላይ የዘወትር ብልሽት የሚደርስባቸው እደብዛታቸው መጠን አመልክት፡፡ 5፣ በጣም በብዛት ይበላሻሉ 4"በብዛት ይበላሻሉ 3፣ በመጠኑ ይበላሻሉ 2፣በትንሹ ይበላሻሉ 1፣ ምንም አይበላሹም

ተ.ቁ	መገልገያ ቁሳቁሶች	5	4	3	2	1
14.1	የኮሌጁ ሕንፃዎች					
14.2	ጠረጴዛዎች					
14.3	ወንበሮች					
14.4	ዎርክሾፖች					
14.5	ዎርክሾፖች ውስጥ ያሉ ማሽኖች					
14.6	ዎርክሾፖች ውስጥ ያሉ መሳሪያዎች					
14.7	ዎርክሾፖች ውስጥ ያሉ ጥሬ ዕቃዎች					
14.8	የኤሌትሪክ ቁሶች (የኤሌትሪክ መስመሮች)					
14.9	የውሃ ቧንቧዎች					
14.10	ጥቁር ሰሌዳዎች					
14.11	ዋይት ቦርድስ					

14.12	ቤተ መጽሐፍት					
14.13	ክሊኒኮች					
14.14	ኮምፒውተሮች					

16 የማስተማርያና መገልገያ ቀሳቄሶችን የሚጠግን አለ ?

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## **Appendix VI**

### **Observation checklist of the pilot test in Tegnare-ed TVET College**

The following checklist is use to direct observation in pilot tests

- How is workshops layout?
- How is stores layout?
- How is stock card used in stores?
- Is there fire extinguisher in workshops?
- Is there fire extinguisher in stores?
- Is there a computer in store to record list of materials?