A STUDY OF PRACTICE AND PROBLEMS OF MATERIAL RESOURCES MANAGEMENT IN GOVRNMENT SECONDARY SCHOOLS IN SOUTHREN ZONE OF TIGRAY NATIONAL REGIONAL STATE

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This is to Certify that the Thesis Prepared By Ketsela Tareke Entitled: A Study of Practice and Problems of Material Resources Management in Government Secondary Schools in Southern Zone of Tigray National Regional State and Submitted in Partial Fulfillment of The Requirements for the Degree of Master of Arts (Leadership in Education) Complies with the Regulations of the University And Meets the Accepted Standards With Respect to Originality and Quality. Signed by the Examining Committee:

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Acronyms

DF	Degree of Freedom
MRM	Martial Resources Management
MOE	Ministry of Education
TEB	Tigry Education Bureau
WEB	Wreda Education Bureau
ETP	Education and Training Policy
AW	Administrative Workers
TTI	Teacher Training Institute
UNESCO	United Nations Educational, Scientific and Cultural Organization

Abstract

The main purpose of this study was to undertake a systematic investigation into the practice and problems pertaining to the management and utilization of educational materials and equipment in some selected secondary schools of southern zone and there by to identify the strengths and weaknesses characterizing it and finally conclude by presenting recommendations. The research method employed was descriptive survey. Respondents for this study were: Teachers and Administrative staff members. A total of 229 questionnaires were distributed to respondents and all were appropriately filled in and returned. Teachers and schools were selected through simple random sampling technique while administrative workers and school principals were selected through purposive and availability sampling technique respectively. Questionnaires, interviews, observation and document analysis were used to collect the necessary information. Results obtained were analyzed by the use of percentage, weighted mean and chi-square test analysis. Statistical analysis results showed that there are noticeable short comings in educational materials and equipment management. Among these, inadequate knowledge and skills of school principals and administrators, delay in purchasing, lack of gathering pertinent information during purchasing and planning of material resources, lack of utilization of available resources exhaustively. Delay in distribution of materials and equipments, lack of coordination and two way communication of information among school leaders teachers and workers and lack of need assessment during planning were observed. As a result, the responsible bodies in schools were not able to properly manage the material resources due to inadequate knowledge and skills in material resources management. Recommendations for addressing these issues include among other things, provision of awareness raising instruction using short term and long term training techniques, devise effective and efficient inventory controlling system in order to control material resources of the school and encourage the participation of the school community in the management of resources so that it is important to solve the educational problems of the school.

CHAPTER ONE

I. INTRODUCTION

1.1 Background of the Study

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 leads to greater earnings of individuals and to enhance greater rate of return for economic development of the people and the society at large (UNESCO, 2002: 63). In line with, the World Bank (1988: 5) states that "without education, development of a country will not occur. Only an educated people can command the skills and abilities necessary for sustainable economic growth and for a better quality of life."

The above statement implies that, education plays a greater role in social, cultural and economic progress of a country. Therefore, all countries place major emphasis on educational policy in designing their plans for accelerating development. So when setting up a map of priorities for investment in education and training, policy makers must, at the same time, take into consideration. The need for increasing efficiency in the use of material and financial resource Ballot (1980: 18).

The success of the teaching-learning process is more dependent upon how schools are capable of managing and utilizing their existing material resources effectively. Moreover, UNESCO (1996:12) agree that using varieties of material resources in their different combinations can promote student's concrete understanding.

As Newby and others. (1996) assert that, materials are decisive for effective and permanent learning. Besides, it can promote motivation, interest and active participation in the teaching learning process. Therefore, for sound educational development and better achievement of the educational objectives, availability and proper utilization of educational resources are the major issues. On the other hand, to get and manage these educational resources are the major challenge for educational managers. UNESCO (1992:151) notes this as follows "one of the basic problems

that educational mangers face is meeting the constantly increasing social demands of education while resources are in scarce."

This implies that, today our educational institutions are increasing their enrolment rates of students every year while the shortage of educational materials and facilities relatively remains constant. So, schools and educational materials will make a great effort to increase the supply side of educational materials in order to satisfy the social demand of education.

In addition to this Papagiannis (1983:7) stated that "*The main problem with which education is faced are the student flood, rapidly rising cost, inefficient management and teaching methods, unsuitability for educational expansion. of present output, and scarcity of resources available* ".

This implies, the proper management and utilization of school material resources will be efficient to create conducive conditions for an effective teaching and learning process and improving the quality of education. Effectiveness and efficiency in materials management also implies that schools systems will make the best use of their scarce material resources to achieve their goals and objectives. In addition to this Datta, (1986:268) states that people all over the world are now becoming more sensitive and conscious about the economic utilization of materials.

Therefore, the schools should be organize better to ensure optimal utilization of available resources for the effective and efficient achievement of the predetermined objectives. In this regard, as support from the community and others entails greater responsibility and accountability for the resources contributed, failure to do so will mean that the marginal returns to secondary education will be low and society may become reluctant to increase the funding of education significantly over time(Lockheed and verspoor,1991: 1788).

Hence, because of these and other inefficiency reasons, studying the materials management in southern zone of Tigray is believed to give unprecedented attention for the proper and exhaustive utilization of the already procured educational materials and equipment besides the attempts to acquire the new ones.

1.2 Statement of the Problem

Social organizations exist to fulfill the objectives for which they were establish. School systems as social organizations establish for the purpose of cultivating students through education. As schools are centers for social development, their main function is providing instruction. So to meet this objective, provision of adequate and relevant educational resources like facilities, equipments, qualified teachers' educational materials etc has to be thoroughly considered. Besides to this, the Education and Training Policy (1994:98) also states "in order to promote the quality of education, relevance and expansion of education due attention will be given to supply, distribution and utilization of educational materials, educational technologies and facilities. "

This policy statement implies that, to bring quality of education, material resources and physical facilities are necessary inputs. Therefore, careful identification of resources and organization bases on optimum utilization of scarce educational resources and considerable attention given by school leaders on decision-making, planning, provision, using and controlling skillfully material resources and physical facilities are essential. The improvements in all aspects of education, however, necessitate incurring a considerable amount of financial resources, which is a great challenge for developing countries like Ethiopia. However, according to UNESCO (1984: 24) " even if countries made a great effort to acquire and utilize educational material resources and equipments, they are not always employed to the optimum degree." The limited studies in our country were also able to reveal under utilization. For instance Demissie (2006: 1-4) who conducted study on material management in Oromia region "found out the existence of poor management of educational resources." This indicates that availability of resources and government's commitment towards education alone does not guarantee effectiveness of instructional goals. Hence, exhaustive utilization and efficient managing of material resources are essential.

The former studies focus only on the school materials management side and they conclude that poor management of educational resources was existed in schools only becouse of the school principals assigned to them were not qualified in educational planning and management. Howevere, they do not see in different directions that brought abuat from such reasons as the poor performance of teachers and administrative workers on material resources management

activities, shortage of school facilities and equipments, inefficient utilization of scarce educational resources also contributed to ineffective management of material resources in schools.

In this regard , there are some gaps or problems such as lack of available educational materials, inadequate qualification of school personnels, scarcity of financial resources and so on were existed in the current practice of secondary schools of material resources management. There fore, to do so effectively and solve these problems in schools, it requires a professional expertise of its own. Accordingly, it demands competent and able leadership to harness all human,financial and material resources for the success of the school(Nwankwo, 1982:71). But, most of our school leaders at secondary schools are not qualified in educational planning and management.

There fore, it is essential to study this project of material resources management practices in secondary schools of southern zone of Tigray inorder to show and solve the gap between what is actualy happening and what should happen in these respected schools.

Accordingly, based on the issues stated above the study attempts to address the following basic questions:

1. To what extent are the performance of teachers and administrative workers of secondary schools effective in material resources management activities?
2. How adequately are the personnel assigned to manage school material resources qualified?
3 To what extent do the avialable school material resources help in making the teaching-learning process effective?
4. What are the major problems encountered by secondary schools in managing material resources?

1.3 Objectives of the Study

The study has the following general and specific objectives:

1.3.1 General Objective of the study

Nowadays where the scarcity of resources is highly pronounced, the overall objective of this research project is to investigate the practice and problems of material resources management of the schools and indicate necessary alternative solutions to the problems of material resources management for improvement of quality education in secondary schools of southern zone of Tigray.

1.3.2 Specific Objectives of the study are:

1. As materials management is a collaborative endeavor, to initiate teachers, students and Administrative staff members to be actively involved in realizing the end results of school activities.
2. To raise the capacity of school principals and teachers in materials and equipments management of secondary schools.
3. To identify major problems of educational material resources management and indicate possible remedial solutions for them for improve quality education of the schools.
4. To develop the positive attitude of teachers and administrative staff workers towards the effectiveness of material resources management in secondary schools.

1.4 Significance of the Study

Schools are the major social institutions where by the teaching-learning process is taking place. However, problems which affect the smooth operation of the school need should be carefully examined appropriate strategies also need should be assessed in order to overcome the constraints of proper handling and utilizing of educational material resources. Therefore, the primary concern of this study shoud be mainly to examine the current status of material resources management in secondary school and identify possible remedial solutions in the problems of material resources management of educational system. Conducting a research should be of paramount importance and the study is believed to have significant value of the following reasons.

1. It may increase awareness among the concerned officials (zonal, Woreda and school) the existing problems of improper management and under utilization of educational materials and equipments.
2. The study will provide some insights about the current status of material resources management practices in secondary schools.
3. Suggest some solutions to the problems under study.
4. The study may provide information for these who have intention to study the problem further.

1.5 Delimitation of the Study

The study was delimited to southern zone of Tigray Region secondary schools. Southern zone was selected because of access to information and secondary schools were also selected to be manageable. Therefore, the scope of this study does not include other regions and zones of the country. There were eleven secondary schools in the zone. Out of eleven secondary schools in the zone, eight (73%) were selected to be part of this study.

The samples schools are:

1. Adishihu Secondary school.
2. Tilahun Yigzaw secondary school.
3. Korem Secondary school.
4. Timuga secondary school.
5. Major general Hayelom Araya preparatory secondary school.
6. Tadagiwa Ethiopia secondary school.
7. Enda Mekony secondary school.
8. Alamta preparatory secondary school.

As material resources management is a broad aspect of activities, it is difficult to deal with all problems and activities. The researcher delimited himself with studying the major problems and the current practices of southern zone secondary schools of Tigray. And the study was confined to material resources aspects only in terms of planning, purchasing, storage, distribution, inventory control, scrape and surplus disposal of materials.

6. Limitations of the Study

Although the researcher put maximum efforts to make the study more reliable and useful, there were some obstacles encountered. First, shortage of related research work materials on the topic at the national, regional and wereda level was short coming. Secondly, the respondents' knowledge on material resources management has also its own limitation. Thirdly, lack of transportation to some schools which are very far from the main road was also a great problem for the researcher. The researcher has tried to over come the problem at the end, by consulting different information sources.

7. Operational Definitions of Key Terms

The following are the contextual definitions of key terms used in this paper.

Educational material resources:- Any thing in the school or its environment that may be modified, organized and prepared for use in the process of teaching and learning .

Administrative Workers:- are employees in a school system but they do not directly involved in class room instruction. They are managers and administrators of the school. This group includes principals, vice principals, administrators, accountants, etc.

Quality Education:- in school work might be refer to input, process, out put or the three dimensions at the same time applied in the educational system and out come external to school .

Effectiveness:- Effective schools are those in which students of all abilities achieve to their optimal utilization of their full potential.

Efficiency:- it measures the achievement of product or out put of given quantity and quality at the least possible cost, time and effort.

Material Resources Management:- is the aspect of managerial functions concerned with the planning, acquisition, allocation, distribution and controlling the proper use as well as maintenance of educational materials and facilities in order to realize the objectives of the education system

Equipment:- refers to non-expendable items which are more or less permanent,have a long life and quality as a capital expenditure.

Secondary school:- an educational level that constitutes grade 9-12. According to Education and Training policy of Ethiopia.

8. Organization of the Study

This study comprises five chapters. Chapter one deals with the introductory part, which includes background of the study, statement of the problem, significant of the study, delimitation and operational definition of key terms of the study. The second chapter focused on review of the related literature. The third was about research design and method. The fourth chapter deals with presentation, analysis and interpretation of the findings and the last chapter presented summary, conclusion and recommendation of the study.

CHAPTER TWO

II. REVIEW OF THE RELATED LITERATURE

2. 1 Introduction

This chapter deals with the review of the related literature. Books, journals, internet review and other related materials that are written on the concept and definition of resource material management, planning, purchasing, supply of educational materials ,codification and standards in educational material and facilities, proper utilization and inventory control of material resources, educational policy guidelines, responsibility and authority in material resources management.

2.2 The Concept of Resource in Education

Resources are essential inputs needed to sustain the life of any organization. They are the only means though which organizational activities, production, service and satisfaction ends are attainable (Durbin and otthers 1989:4). For the achievement of organizations objectives resources play the major role. And also the success of any organization depends on the optimum utilization of its key resources such as human, material, financial and time.

In relation to education, resource is anything in the school to its environment that may be organized for use in teaching and learning process (UNESCO, 1992:152). All educational resources have unique and common characteristics. They are vital inputs needs to effectively conduct the teaching and learning activities, they are difficult to obtain or they are scarce like other economic resources and managing these resources is a challenging managerial activity.

It is from the above point that these educational resources are scarce and it is also difficult to meet the constantly raising social demand for education. Therefore, schools require constant supply and development of additional personnel and other educational materials. In addition to that, new reforms and innovations have been designed and introduced in order to make education more relevant to socio-economic and political aspiration of the society (Alen and Audrey 1987:23).

2. 3 The Concept of Physical Resources Management

Physical resource management in education includes all non-human resource inputs such as learning resources, institutional premises and grounds. The management of physical resources may be broadly categorized into two aspects that are plant management and materials management (Melaku, 2010:58).

This definition of physical resources management includes all educational resources such as buildings of educational institutions, learning resources and grounds that are very important to conduct and achieve the teaching and learning objectives.

2.3.1 Physical Plant Management

Melaku (2010: 60-61) in his document pointed out five modern understanding ideas about the concepts of physical plant management. These are:

1. **Program determines plant:-** means the provision of physical facilities to the achieve. institutions including secondary schools should be made in view of the realization of the educational objectives that they are expected to achieve
2. **An educational institution or a school as a home a way from home:-** This concept implies that, school plant is expected to be kept clean, orderly, and in good repair and maintained for the healthy physical growth and psychological attraction of students to the environment.
3. **Community use:-** school plants provide services not only to their students but also to community groups .For example, they serve for social gatherings, elections and for various services.
4. **Adaptability to future needs:-** school plant buildings should be planned on sites of generous size and their design should consider future time additions when the need arises.
5. **Sound Economy:-**Educational premises including school plants must be built as economically as possible with out compromising on essential standards of safety fitness for students.

These concepts are meant to provide the basis with which quality of teaching and learning could be maintained and handled in secondary schools and other educational institutions. Besides to this, adequate and well kept educational institutions including secondary school plants are vital for the healthy physical growth and psychological attraction of students towards the teaching and learning process. There fore, school systems should make more efforts to conduct proper management and utilization of physical plants for an effective instructional process and improving on the quality of education.

2.3.2 Material Management

Materials management is a distinct aspect of organizations management and contributes a very vital role to achieve the pre determined goal of the organization. As it covers a much wider field and deals with all aspects of materials, it is the most important functional areas of any organization.

According to Ballot (1980: 6) *Materials management can be defined as that 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 service in line with corporate goals.*

This definition implies that, materials management is an organized, integrated, coordinated, control and utilization of materials throughout an organization for the acquisition of effective and efficient end results. Therefore, educational institutions and schools should play a great role in managing these scarce resources in a proper manner and employed them effectively to attain their objectives.

2.3.3 Objectives of Materials Management

Materials management covers all aspects of material including flow of materials, cast, quality supply, maintenance and utilization of materials. So the prime objective of materials management is to supply the user with the required quantity and quality of materials at a constant rate (Datta, 1998:31).

In line with this objective other authors also defined materials management as follows: According Ballat (1980:16-17), the goal of materials management fall into two categories: Administrative goal and operating goal.

The administrative goals will include management by objective, control on departmental expenditures, development of personnel, improvement of safety consciousness, fulfillment of materials programmed, elimination of duplication of efforts and better communication.

The operating goals will cover such functions as reliability and accuracy of performance, proper records and reports, optimum materials acquisition, effective utilization of the firms' prime assets, Equitable and favorable vendor relations, control and reduction of materials costs.

Therefore, modern materials management should provide many simplified tools and techniques which offer great scope fore cast reduction to improve the profitability of an organization. In educational institutions also materials management has a great advantage for the achievement of educational objectives, because materials resources and facilities are very important factors to bring quality of education. Thus, due attention has to be given to qualitative and quantitative supply and utilization of materials resources.

2.3.4 The Scope of Materials Management

The scope of materials management involves planning, directing and controlling the kind, amount, location, handling movement and timing of the various flows of materials used and produced by business enterprise (Sherleker , et al. 1988:496). Furthermore, he points out four branches of materials management, these are: a. procurement b. store keeping and inventory, c. material handling and d, transport of material from the supplier to consumer. Besides to this, UNESCO (1992:154) also clearly points out the scope of materials management in relation to the major managerial functions. It consists of planning, acquisition and supply, allocation, distribution and control of the use of material resources. From the above explanations material resources management by different writers from different point of view one can understand that the scope of materials management is very vast and complex. In addition to that, materials management cannot perform in isolation. It is an integrated and coordinated activity of management (Datt, 1986:13-15). So, based from the above idea it is clear that the scope of

materials management is vast and it is an integrated and coordinated activities of management but according to the scope of this research study of the school material resources management functions will be discussed briefly as follows.

2.4 Major Problems in Educational Planning

The following major problems have been identified by UNESCO (1992:72-73) which are more or less related to material resources management planning in education includes: planners have not given an opportunity to plan for they are often issued with directives and orders to employment by politician; policies that are guided by political sentiment are often contradictory; poor-coordination of educational programs and projects with a resulting possibility of duplicat.Shortage of funds for recurrent expenditure; .Lack of trained educational planners and implementers; Poor communication and transport systems render it difficult to supply materials and equipments as well as monitor effective implementation of educational plans ,and poor control system to ensure that scarce educational resources are efficiently used.

Planning in relation to educational materials is a sub-system in the overall planning activity and is defined as "a decision making mechanism for designing the best possible alternative strategy in the use of scarce material resources earmarked for the achievement of educational goals" (Mbamba, 1992:155). It is obvious that educational institutions discharge their responsibilities under serious shortage of resources.

Hence, according to Mbama (1992:155) planning of educational material resources starts with the collection, compilation and analysis of data and information pertaining to the use of available resources. This enables to identify the strengths and weaknesses and to forecast future course of action. As indicated above, resources in education are scarce. So, through planning managers identify the main problem areas and prioritize the problems according to their importance.

2.4.1 Material Resources Planning

Planning is a mental process involved in developing and formatting the best possible alternative course of action Data (1986:11). Without planning, the activities of the various components may well become a series of random actions with meaningless objectives. Therefore, planning as one of the major managerial activities has to do a lot with achievement of organizational objectives.

There are different elements of planning such as defining action for the future, establishing goals and objectives for a course of action, defining and evaluating of alternatives, responding and projection of alternative course of action etc are some of the common elements.

UNESCO (1992:155) defines planning in relation to material resources as a decision making mechanism for designing the best possible alternative strategy in the use of scarce material resources earmarked forth achievement of educational goals and objectives.

According to Data (1986: 11) material planning is primarily involved in the formation of an intelligent scheme of action designed to accomplish its objectives effectively and economical. It is also from this point of view that UNESCO (1992: 64) points out the important material resources planning include achieve effectiveness and efficiency of material resources activities; meet the pressure of accountability of the management; use scarce resources carefully and economically; match educational goals with its impact on development in terms of socio-economic growth of the society; synchronize and harmonize educational programmer; and communicate projects and activities of the organization with other social economic and socio-cultural activities.

The above definitions imply that planning enables anybody to use rational thinking in order to choose the best decision. In addition to this, planning is also a decision making activity that helps to designs the preferable alternative in the use of scarce resources so the importance of material resources planning in schools is to ensure that the resources needed for the educational activities are secured in the right quality, at right quantity, in the right place, at the right time. This well ensures that there is no duplication of services and efforts of the school.

2.4.2 What Educational Planners Needs to now when They Prepare Plans for Education

The essence of education is learning. Teacher's text books, educational technologies, physical facilities and administration are all means to expand and accelerate learning. Besides, UNESCO, (1984) reveals the importance of educational materials and facilities that Students who attend well maintained and adequately furnished and equipped buildings have a profoundly positive

effect on both participation and achievement rates, create a secure learning environment, addresses a quality issues of learning, provides for a better academic performance and attendance of students in school.

Thus, educational institutions are expected to possess, to consider and to sue important educational materials and facilities is a major factor to achieve the objectives of education systems.

2.5 Acquisition and Supply of Educational Materials

Stoops, (1981:63) stated that the management of modern supply and equipment management is a complex task. Constituting, significant percentage of the annual expenditures of school system is being spent for supplies and equipment.

Therefore, the daily carrying of the educational process will require the use of various types of supplies and equipment. In connection to this Harris, (1985:173) has emphasized on the need for materials acquisition and supplies, as some supplies, are consumed at a rapid rate while the consumption rate of other might be at a much slower pace. Equipment refers to certain types of materials that may be used over a period of time and non-expendable items, which are more or less permanent. Equipment is most of the time referred as a capital expenditure. Therefore, to cover what is consumed during the processed and to have additional more supplies and equipment one has to deal with acquisition and supplies of education materials. UNESCO (1992:157) states that acquisition and supplies of education materials is related to determination and definition of types and quality of material needed for the effective and efficient implementation of curriculum and establishment of preferable procedures for securing them. Stoop and Others (1981:164) believed that teachers most of the time utilize supplies and equipment. These supplies and equipment need constant attention and study. Acquisition and supply of educational materials come after planning.

In this regard, UNESCO (1992:157) points out that acquisition and supply of educational materials encompasses the following processes that mostly require cooperative efforts of the user or technical experts.

1. Drawing up of detailed technical specification.
2. Establishing criteria to set standards which comply with the prior set objectives.
3. Selecting appropriate materials from a wide range of available materials.
4. Deciding on the procedures of securing the specified materials within the required time span, which entails, choice between purchasing, production, construction etc.

From the above procedures of acquisition and supply of educational materials, one can understand that the technical experts of purchasing can help to provide the required quantity and quality of materials for schools. Besides, to prepare specifications, standard and technical backgrounds are the necessary criteria for effective purchasing. Therefore, for effective and efficient purchasing of educational materials, purchasing personnel should need appropriate training in all aspects of purchasing activities.

2.6 Purchasing of Educational Materials

Data (1986) defined purchasing as follows: purchasing is providing the proper quality and quantity of required materials at the proper time and reasonable price. The purchasing function must satisfy operations by developing reliable sources of supply, that is, the purchasing function provides the required quantity and quality of materials and services at the right time, at the minimum ultimate cost in line with corporate objectives of the organization.

In connection with above definition, Bollat (1980:149) point out purchasing is the key stone of materials management. And also for effective organization, purchasing must be an integral part of the whole material network. This is the only possible approach to eliminate conflicting responsibilities and authorities to plans, schedule, procure, and to control the movement of all purchased components converted into the finished product.

Kinezervarch and Fowlkers (1960:72) have also identified the following procurement procedures:

A. Requisition,
B. Specifications,
C. Bids of quotations,
D. Contract or purchase order,
E. Follow-up by purchasing department and
F. Receipts of goods are the most important purchasing procedures.

The primary purpose of purchasing in education is to guarantee the teaching-learning process by purchasing needed materials. In order to fulfill this task the purchasing department together with the school personnel can necessary follow up the purchasing procedures such as requisition of materials, bids of quotations, purchase orders and etc. in order to obtain proper materials and services with minimum available cost, in the right quantity and quality of materials and at the right time.

Therefore, for effective and efficient procurement of educational materials, purchasing personnel should need appropriate training in all aspects and procedures of procurement.

UNESCO (1992:158-159) stated that the effectiveness and efficiently of the education system to great extant depends on the amount and quality of instructional material available. These instructional materials in most cases have also to be purchased by the system, one has to follow certain steps or procedures, these are:

1. Ascertaining or recognizing the need for the material this can be done with the help of sample survey or check up of the available stock.

2. Determining the character and quantity of material that will be required.

3. Deciding on priority basis what can be purchased in relation to the available funds. Drawing detailed specifications of the required items.

After we look the technical backgrounds and criteria for effective purchasing, schools can determine the amount of purchased instructional materials based on the prioritized activities of each department of the school. Because the available alternatives about how to best use their score resources to promote the teaching-learning process.

2.6.1 Prevailing Problems in School Purchase

The effective schools movement has an equity dimensions. In a world of finite resources, schools may have to make some choices about how to the best use their scarce resources for the good communities and societies (Ray and others 2001:12). But, in the process of purchasing schools have many problems; some of them are stated as follows:

1. The lack of budget for purchasing material resources.
2. Lack of adequate and trained man power.

3. Problems in making clear specification and standardization of materials.
4. The follow-up problems due to shortage of communication facilities.
5. Inadequate knowledge in policies, principles, rules and regulations regarding purchasing and management of material resources in schools.
6. Inadequate files of purchasing department.
7. The in convenience of storage material resources.
8. The problem of not closing accounts in time.
9. In adequate planning, budgeting, auditing, reporting and inventory control systems are some of the major ones.

It is obvious that educational institutions and schools discharge their responsibilities under serious problems and shortage of material resources. So schools to relive and solve the above prevailing problems of purchasing, they make better efforts to fulfill well trained purchasing personnel, follow-up and prepare necessary criteria such as specifications, standard and technical purchasing backgrounds and manuals for effective and efficient purchasing of instructional materials.

2.7 Storage management of Educational Materials

Sherleker, (1988:493) state storekeeping is that aspect of material control concerned directly with the physical storage goods. And warehousing department also responsible for receiving in coming goods, signing and checking the delivery notice, identifying and recoding in coming goods, reporting receipt to purchasing, inventory control, and quality control and making prompt disposition to promote the instructional process.

Warehousing also deals with each material in storage must be locatable. Therefore, to him the proper storage location for each material is a function of the length of time is expected to stay in storage;the amount of space available and the expected frequency and size of issue.
The process of establishing a system of warehousing in material supplies and equipment in storage can be protected from fire, theft and deterioration.

Sharlekar and others (1988:494) also identified the following functions of storeroom.

1. **Receipt of incoming material:-** the material are inspected and checked. And also defective materials are returned to the supplier.

2. **Recording keeping materials:-** the details of each consignment are recorded on goods receive note. The storeroom is responsible for efficient and orderly record-keeping of all materials. The store register should indicate all receipt, issues and balances of material on hand storage of material. Materials entering the store must be stored on suitable containers, at convenient places as safely as possible.

3. **Issue of material release:-** material requisitions signed by authorized persons.

4. **Purchase requisition:-** the store keeper has to keep stocks, in safe custody against losses, damages, pilferage and unauthorized uses.

5. **Inventory control:-** the storekeeper is in change of conduct of physical inventory control and care of resources.

In addition to the above functions of stores, schools will have to fulfill proper location of stores, layout, maximum possible utilization of available space, and proper placement for their successful functioning of stores. Hence, schools should create a good relationship and cooperation among students, teachers, store keepers and other workers in the proper keeping and utilizing of educational materials. Thus, in turn helps to solve the problems encountered the storage department.

Ballot (1980:175) notes also the activities of receiving and stores are preformed in the four basic area tasks of receipt, verification, storage and issuance.

Receipt: receiving and stores schedules deliveries by carries in order to effectively unload materials and eliminate demurrage charges.

Verification: it means inspects and verify quality and quantity of delivery material against vendor's is and carrier's manifests of pacing lists.

Storage: receiving and stores is responsible for properly storing all material to protect against damage, deterioration etc and it uses storage technique that the first materials received are the first issued and to maximize use of space and to handle materials in an efficient manner.

Issuance: receiving and stores must issue the required quantity of materials to authorized persons and user departments at the proper time.

Thus, schools need to store a great deal of educational materials and equipments that are delivered and performed in the four basic areas tasks of receiving and stores. If these basic

processes and activities of stores have properly applied in the school, the teaching-learning process will be facilitated as needed. However, store activities of material resources in our educational system was not given due attention. So, in line with the above idea schools should play a great role to the practicality of the basic store activities for the better achievement of the school goals.

2.8 Allocation and Distribution of Educational Materials and Equipment

Allocation and distribution of educational materials are the two most important functions in materials management in any educational systems. Allocation of educational material for UNESCO (1992:161) refers to "allocation of resources to various programs and among various systems, sub systems and regions on the basis of a criteria established by the top management of the education system."

In allocation of educational materials one has to follow certain criteria or principle. In this case, UNESCO (1992:162) points out the following criteria, to him the major criteria in education system are usually drawn up with due consideration of size of the educational system such as amount of materials available, or using measurement units like class size, total enrollments of students, cost per pupil, teacher-pupil ratio, method of instruction, and level of education etc material resources allocation criteria guide the decisions-making on the level of distribution to various programs and administrative sectors. The issues of equity and fairness are important aspects to be considering in allocation of material resources of education.

Efficient allocation and distribution systems are vital and responsive to the user's needs, they have the ability to react rapidly in periods of emergency and they are economical to operate the activities of the school or any organization.

Therefore, the effectiveness and efficiency of the education system to great extent depend on the amount and quality of instructional materials available. And these instructional materials in most cases have also to be purchased by the education system including schools in order to promote the teaching-learning process.

2.9 Proper Utilization and Inventory Control of Educational Materials

Proper utilization, directing and control of material resources are the most important managerial functions in materials management. According to Datta (1986:2) managerial function in guiding and supervising the activities of others in proper utilization of available material resources of the educational system. There is an important principle of resources management that is resources should not be idle or under used. UNESCO (1992:162) states that proper use of material resources related to the utilization of material resources to effectively and efficiently accomplish educational objectives.

Condoli and others (1984: 219) point out the success of teaching and learning process is practically dependent up on how the schools are capable to manage and utilize their scarce resources effectively and efficiently. However, the improper and poor handling and using of material resources are liable to lead to failure.

The above statement implies that, the success of instructional process in schools is more or less depends upon how school leaders are capable to manage and utilize their scarce resources for achieving their objectives. Therefore, schools should be organize better to ensure optimal utilization of their available resources effectively and efficiently.

Controlling is a process of a ascertaining the provision of right quantity and quality of materials, at the right time and reasonable price of managerial services and activities that deal with proper utilization. And the periodic inventory will help to identify out-worm, obsolete, and defective materials which should be replaced or simply disposed of. Besides, material resources controlling serves as a tool for checking weather the material resources provision and use on the basis of established rules and regulations.

Sherleker, (1988: 500) states all goods between the receipt of row material and the dispatch of final products to customers are termed as inventory. Furthermore, he has stated that inventory control means control over materials lying in store.

According Melaku (, 2010:59) also defined inventory control as follows:

> *Inventory control is a term given to the tasks of determining the optimal levels of inventories or materials needed to support the basic activities of an educational system. And it covers aspects such as setting inventory levels together with its analysis, fixing economical ordering of quantities, setting safety stock levels and reporting.*

The above definition of inventory control implies that it is vital to maintain inventory levels at a point at which items are available to the teaching staff, educational managers and support staff when needed. And inventory control also helps in keeping inventory levels or materials at optimal levels of the school stores. If inventory levels are too low, needs of the school community cannot be met and the teaching-learning process may be impaired. If inventory levels are too high, not only have funds been spent on materials that may never be used, but also storage and distribution facilities are overcrowded. Therefore, schools able to work in co-operation with students, teachers and administrative workers so that they able to maintain inventories or educational materials at optimal level of utilization for achieving their objectives.

In addition to the above , education and training policy and its implementation MOE (2002: 24) noted, to ensure quality of education, students should have quality of text books in sufficient quantity should have adequate work shop and laboratory materials and equipment especially in secondary schools and the proper utilization should be given a great emphasis.

Similarly, UNESCO (1984: 9) pointed out that the instructional materials such as: text books, maps, globes, laboratory equipments and others facilities are the critical resources in school and their proper utilization should be due attention by principals and other non-teaching staff to its management.

So, school communities serve for increasing resources in effect is to use them more fully. This means that in schools resources are scare. Therefore, no resources should be idle or under used. For instance, teachers and students should be intensively used the critical resources such as text books, maps, globes, laboratory equipments and other facilities as possible as effectively use for the improvement of the teaching-learning process.

Therefore, in schools for effective and efficient maximum utilization of educational materials all educational managers, teachers and storekeepers are responsible for its application with better results.

2.10 Maintenance of Educational Materials and Equipments

Condoli (1984: 229) noted maintenance as continuous process of repair and replacement of pieces of property wheatear grounds, buildings or equipment as nearly as possible to the original condition of compels. Italso goes further and includes good care and wise use of material and equipment in proper way.

One of the key planning roles of the school administration is in the maintenance operation of plant, equipment and service facilities. A good materials management is invariably linked with the maintenance and control of materials flow, it will probably requires more concentration and effort on those few areas where cast effectiveness will have significant impact on better performance and results. As maintenance is associated with up keep, repair and replacement of all school facilities, operation is concerned with keeping such facilities and equipments open and/or ready to be used by the house keeping functions, the performance of scheduled up keep procedures, and plant security for the entire system.

As a part of administration task school administrators should join and plan with other staff members to the right functioning of maintenance operation and push for its adoption by the board (Condoil, 1984:230).

In schools there should be a continuous maintenance and operation because unlike other materials school material are frequently used by many people; teachers and students. Thus the propose maintenance and operation of material resources doing in school effectively is important for facilitate the teaching and learning process of the school and keep to achieve their objectives.

2.11 Disposition of Educational Material Resources

Every organization produces scrap or waste from its operation. Gopalkrishanon (1998: 178) define obsolete, surplus and scrap as follows:

> *Obsolete items: are those material and equipment which are not damaged and which have been economic worth but which are not longer useful for the company's operation owing to many reason such as changes in product line, process, materials and soon.*
> *Surplus items: are those materials and equipments which have no immediate use but have accumulated due to faulty planning, forecasting and Purchasing. And also scrap items: is defined as process wastage, such as turnings, borings, spruces and flasher.*

According to the above defection in schools also produce the obsolete, surplus and scrap materials. Now-a-days, they accumulated in the form of unused materials in different areas of school such as stores, pedagogical centers and library departments. Therefore, in schools it is also very common to see surpluses of faculty planning, for casting or purchasing, because these activities were not given due attention. So, the principals and teachers should be well informed about surplus and obsolete properties in the schools in order to contribute their valuable efforts on the protection side of these activities and proper utilization of the materials.

There are various reasons to have surpluses in schools beside these Dobler (1996: 603-607) states that surpluses that result from inefficient use of material, carelessness and poor purchasing are wastages. The proper management plays a great role in minimizing surpluses. The wear out of or technology obsolete materials should be disposed in time to facilitate teaching and learning activities. In the process of disposal, the ideally way of disposing of excess materials is to transfer it to another school where the materials is not accessible. Donation or sealing is also the most cost-effective approach of disposition. Finally dumping or their wise destroying is the last way of disposition. It should be the alternative where materials in education should be destroyed.

2.12 Standardization in Educational Materials and Equipments

Gopolkrishanon (1977: 42) states that standardization enable the materials manger to achieve overall economy and ensures inter changeability of parts. It also implies better availability, reasonable price and better delivery or service, besides, standardization indicates routnizing purchase efforts which results in less stock and minimize obsolete items. In line with the above idea, Harris (1985: 178) stated that specification provides the foundation for standards of quality concerning services, supplies and equipment. Quality from optimum performance and durability are desired by the lowest cost possible of materials and equipments of educational organizations including schools.

However, standardization of educational materials, facilities and equipments in our education system was not given due attention. But, in most good situation work are as each educational material or equipment has to be put based on standards in order to get better performance, durability services and reasonable cost of them.

2.13 Codification of Educational Materials

Schools store have a large number of items which need some techniques of coding and identifying them. Gopalokrishnan and Sanderson (1977: 41) defines codification as, "... a 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." Hence proper codification will enable effective utilization, identification and placement which ultimately save time and energy. The systematic grouping embodied in it avoids confusion caused by long description of the item.

2.14 Policy Guidelines, Rules and Regulations in Material Resources Management

For proper material resources management to haw a clear responsibility and authority fully administrative for Condoli (1984: 44) can explain in two forms these are:

1.Policy: express the philosophy of education and answer the question "why" this policy is established by the board after giving due consideration to know wishes of the people of the district and the counsel of the chief school office and staff members.

2.Rules and regulations: express the methods by which policies and laws are to carry out. They answer the question, "how" they constitute the administrative plan and developed by school mangers with the help of their staff members, students, parents and local communities of the school.

Therefore, educational managers must have an adequate understanding of policy in his/her school system. He/she has to aware of relationship between these several levels of decision-making including the state policy of education.

CHAPTER THREE

3. THE RESEARCH DESIGN AND METHOD

1. The Research Method

The method used to conduct this research is the descriptive survey method. The descriptive survey method is selected for the reason that it helps to gather variety of data from large number of school members. And it also enables to obtain current information about the problem encountered the schools and the actual practices they perform regarding material resources management .The research aims to investigate the practice and problems of material resources management and indicate necessary alternative solutions to the problems encounter in the schools. Besides this, it enables to study the utility of educational materials, the state of participation of the school society, the managing capability of the school administrators and the status of the schools in relation to material resources management.

2. Sources of Data collection

The data for this study were obtained from both primary and secondary sources. Schools, teachers, school principals, school administrators, storekeepers, librarians, laboratory technicians and record officers were the sources of information for the primary data. Besides to this, observation and document analysis were made on stores, library, laboratory, classrooms and the school campus in order to investigate the actual condition of the school materials to secure more qualitative information.

For secondary data, relevant books, different documents, proclamations, policy manuals, reports and websites from internet information were reviewed carefully. Moreover, other relevant literatures in relation to material resources management were assessed for the study.

3. Sample Size and Sampling Techniques

Southern Tigray zone was the setting of this research project. In the zone, there are eleven secondary schools. And also there are two cycles of secondary schools. The first cycle of secondary schools serve for grade nine and ten students, while the second cycle of preparatory schools provide service for grade eleven and twelve students. Out of the eleven secondary

schools four of them were selected from each cycle. This constitutes eight secondary schools (73%) of the zone..

From 230 teachers of total population in the sample schools165 (71%), and all (64) the administrative workers are selected for the sample. In order to ascertain proportional representation to the total size population, sex and year of service from each of these eight schools, teachers and schools were selected using simple random sampling technique. Because this technique helped to give every teacher or school has equal chance of being selected as sample and each selection is entirely independent of the next. I*n this regard, since* it drew randomly from the wider population, would be useful if the researcher wished to be able to make generalization of the wider population. While the administrative workers were selected based on availability sampling in order to get available information from the concerned bodies.

As a whole, the total numbers of sample respondents of the study were 229(77%) subjects. These subjects were selected from 294 total populations in the sample schools using different techniques of sampling.

4. Instruments of Data Collection

In this study the researcher employed different methods of data collection to gather valuable information from the sources. These were questionnaire, un-structured interview, observation and document analysis.

Questionnaire

Questionnaire is one of the instruments, which is used for collecting data from respondents. There were two types of questionnaires, one is for teachers and the other is for administrative workers. These questionnaires were developed to collect valuable information from teachers and administrative workers who were teaching and managing at the target schools of the zone. The items in the questionnaires were comprised of both close-ended and open ended type of questions. The close- ended questions were used for the very reason that they were easier to categorize and interpret the data gathered. The question items were drafted using the insights gained from the review of the related literature. The basic reason for the preference of research

questionnaire as to the other tools is that, it is possible to reach relatively large research subjects with in this time limit and reaching possible solutions to the basic research questions
In addition to this, A pilot testing of the questionnaire items was carried out in Kkorem and Machew secondary schools. This helped to provide information about deficiencies and suggestions from the respondents in order to improve the validity and reliability of the items in the questionnaire

The questionnaires were prepared in English language. As all respondents of the study are relatively qualified and able to write their opinion in the English language, the questionnaires were administered for them in English.

Interview

In order to triangulate and strengthen the data that was gathered through the questionnaire the researcher also used un-structured interview. Besides, it was used for collecting information that was not gathered through both types of questionnaires. The interview that designed for principals was un-structured. The aim of using interview was conducted as it was flexible and enable to gather deeper information.

Observation

In the study, observation as one of the research tools could enable the researcher to gather' live 'data from 'live' situations such as the physical ,human, interactional and programmed settings.
So, in order to triangulate and strengthen the data that was gathered through the questionnaire and interview the researcher also used structure observation. Besides, it was used for collecting information that was difficult to gather through both questionnaire and interview. In this regard, observation method of data collection also enables the researcher to understand the context of programmes such as the resources and their organization, the physical environment and their organization, the characteristics and make up of the groups or individuals being observed in the sample schools.

Document Analysis

In the study, document analysis was made to triangulate and strengthen the data that was gathered through the questionnaire, un- structured interview and observation. Furthermore, the researcher was analyzed any relevant and pertinent documents to collect information that was difficult to gather using the questionnaire, interview and structure observation. This method of data

collection was primarily used for the purpose of evaluating the current status of material resources management systems of the target schools of the zone.

5. Procedure of Data Collection

The data gathering instrument, the questionnaire were pilot tested and reviewed by experts in order to make essential correction and maintain the validity of the instrument before the final study is conduct. This helps to avoid errors likely to happen. The questionnaires have been tried out in two secondary schools of southern Tigray zone. In the try out of the questionnaires items 12 teachers 8 Administrative workers have participated. And also the researcher encourages the pilot test group to make comments and state suggestions concerning the study directions, recording procedures, and specific items of the questionnaire. So, this is important for improving the validity and reliability of the items in the questionnaire. In addition to this, the researcher estimated the reliability coefficient by correlating the two equivalent haves, odd items and even items and by taking the spearman-Brown formula to determine the reliability of the whole items of the questionnaire. Accordingly the reliability coefficient of the whole items of the questionnaire was determined 0.82 .And this end result of reliability indicates that the whole items of the questionnaire have strong internal consistency or similarity of responses of the respondents to the required result of the study.

Respondents were pre-informed about the objective of the study and orientations have been given to respondents as to how to compute the questionnaire to avoid confusion. When distributing the questionnaire, the time convenient for the respondents were arranged so as to maximize the rate of return.

Interview was also made after negotiating appropriate time and place with the interviewee. Finally relevant documents and observation on the physical environment facilities, human ,interact ional and programmed settings on the current practices of the management of school material resources were collected pertinent data from different sources were analyzed to get important information that was more valuable to the success of the study.

6. Methods of Data Analysis

The techniques of data analysis used in this study employed both quantitative and qualitative in nature. After the questionnaires were returned from the respondents, the process of tallying and

tabulation were carried out and then according to the nature of questions, different types of statistical tools such as percentage, mean, rank order and chi-square were carried out for analysis to describe significant similarities, differences or agreements between the respondents.
As a result, the basic statistical techniques that were used to analyze the study are:

1. Percentage and frequency counts used to analyze various characteristics of the sample population. This statistical tool would help to determine the relative standing characteristics such as sex, age, academic qualification, work experience and field of specialization. It is also used for other questions with ordinal and nominal character.

2. In analyzing the data, besides the descriptive statistics (i.e. percentage, rank order and mean) chi-square, were employed to determine statistical significant difference or relationships and level of agreements in the various variables in the judgments between the response of the different groups of respondents (teachers and administrative workers).

The information, which was obtained from the open and close-ended questionnaire, interview, observation and document analysis were also considered in the interpretations.

Chapter Four

4. Presentation Analysis and Interpretation of the Data

This chapter incorporates the characteristics of the respondents, presentation ,analysis and interpretation of the data gathered from the respondents.

4.1 Characteristics of the Respondents.

Respondents for this study were 165 teachers and 64 administrative workers. Among these appropriately filled in and returned questionnaires were 100 percent from both teachers and administrative staff members. On top of this eight school principals were interviewed. As a result, the researcher believed that the response were found to be sufficient to draw inferences for the study. Finally, out of a total of 229 questionnaires distributed 100 percent was appropriately filled in and returned from the respondents.

4.2 Analysis and Interpretation of the Data

The aim of this topic is to analyze and interpret the research data in view of the basic questions established and the concepts and ideas discussed in the review of the related literature.

Table 1: Respondents by Sex, Age, Year service and Qualification

Item	Respondents					
	Teachers		Administrative workers		Total	
	F	%	F	%	F	%
Sex						
Male	139	84.24	55	85.93	194	84.71
Female	26	15.76	9	14.07	35	15.29
No response	-	-	-	-	-	-
Total	165	100	64	100	229	100
Age						
15-25 years	23	13.93	-	-	23	10.04
26-35years	77	46.67	14	21.87	91	39.74
36-45 years	47	28.49	33	51.56	80	34.93
46-55 years	18	10.91	15	23.44	33	14.41
Above 55 years	-	-	2	3.13	2	0.87
Total	165	100	64	100	229	100
Year service						
1.5 years	14	8.48	4	6.25	18	7.86
6-10 years	21	12.73	10	15.63	31	13.54
11-15 yes	62	37.58	11	17.19	73	31.88
16-20 years	43	26.06	31	48.44	74	32.31
Above 20 years	25	15.15	08	12.50	33	14.41
Total	165	100	64	100	229	100
Educational level						
MA/MSc	-	-	2	3.13	2	0.87
BA/BSc	137	83.03	22	34.37	159	69.43
Diploma	28	16.97	30	46.88	58	25.33
TTI	-	-	-	-	-	-
12 Complete	-	-	10	15.62	10	4.37
Total	165	100	64	100	229	100

As show in Table 1, out of the total 229 respondents involved in the study, 194(84.71%) were males and 35(15.29%) were females. The number of female responds, As shown in the above table were, 26(15.76%) from teachers and 9(14.07%) from administrative staff members.

This implies that females' participation in teaching and managing activities in high school was very low. On the whole, males have the higher participation rate than females.

Item 2 of Table 1, shows the age distribution of respondents. Accordingly the majority of teachers respondents 77(46.67%) fall between the age range of 26-35 years and the majority of administrative staff respondents were 33(51.56%) fall between the age range of 36-45 years. According to the data the majority teacher respondents were young staff below 35 years of age,

where as the majority of administrative staffs were above 35years of age. As a result, through provision of workshops and seminars these groups would be better care takers of school property.

As depicted in item 3 of the same table the majority of teachers and administrative staff respondents had fall between the range of 11-20 years of work experience. Such long years of work service would assist them to provide relatively reliable and relevant information which would be invaluable input to the study. On top of this, a good number of respondents fall below and above this range. This enabled the study to gather important information form teachers and administrative staff members of all ranks. In addition, long years of service of administrators would help them to provide expertise information.

When considering item four of the above table, as the study is primarily on secondary school, the majority of teachers 137 (83.03%) were degree holders and 28 (16.97%) of them were diploma holders. Besides 22 (34.37%) of administration staff members were degree holders and 30(46.88%) were diploma holders and also 10 (15.62%) were grade twelve completed. Hence this heterogeneity of respondents in regards to educational levels would enable the study to incorporate diversified views pertaining material resources management and its utilization within the schools. On the other hand, the study indicates that in light of the MoE (1994) education and training policy, the minimum requirement for secondary school was degree and above. But some considerable proportion of respondents 28 (16.97%) of teachers and 30 (46.88%) of administrative staff member did not fulfill this minimum requirement standard. From this one can point out that, these members were not armed with the necessary information inputs to the study.

Table 2: Availability and use of Documents, Guidelines and Rules

No	Items	Responses	Respondents								
			Teachers		Administrative workers		Total		DF	Table Value x^2	Cal. Value x^2
			F	%	F	%	F	%			
1	Are there guidelines to manage the over all material resources in your school?	Yes	60	36.30	23	35-94	83	36.24			
		No	94	56.97	38	59.38	132	57.64			
		I don't know	11	6.67	3	4.68	14	6.11			
		Total	165	100	64	100	229	100	2	5.99	0.342
2	Are there basic documents regarding the management of material resources?	Yes	33	20.0	23	35.94	56	24.45			
		No	108	65.45	36	56.25	144	62.88			
		I don't know	24	14.55	05	7.81	29	12.66			
		Total	165	100	64	100	229	100	2	5.99	5.03
3	Has you school established rules for proper functioning of material resources?	Yes	66	40.0	21	32.81	87	37.99			
		No	88	53.33	40	62.50	128	55.90			
		I don't know	11	6.67	3	4.69	14	6.11			
		Total	165	100	64	100	229	100	2	5.99	2.32

Significant level= 0.05 DF= Degree of freedom

In item 1 table 2, the respondents were asked about the existence of policy guidelines manage the over all material resources in secondary schools or not; accordantly in item 1, a considerable proportion of the respondents, that is, 60 (36.36%) of teachers and 23 (35.94%) of the administrative workers responded and 23 (35.94%) of the administrative workers responded positively. Where as 94 (56.97%) of the teachers and 38(59.38%) of the administrative workers responded negatively. Regarding the existence of guidelines to manage the over all material resources in secondary schools the chi-squire test employed ($_x^2$=0.342 < table-value of 5.99) shows that there was not significant difference between the two groups of respondents. To

examine the actual condition as the document analysis and observation made by the researcher shows in all schools there was only one guideline that is entitled "school finance and material resources administration' this indicates that there was inadequate guidelines to mange the over all material resources in secondary schools. This shows that the distribution of guidelines and other useful documents from the responsible bodies were low.

As item 2 of table 2, the respondents were asked about the basic documents of material resources management. In this case, the majority respondents that is 108(65.45%) of teachers and 36(56.25%) of administrative staff members responded negatively. On the other hand, there were also considerable positive responses, but these positive responses do not bring statistically significant difference between the two respondents. So the result indicates as there were inadequate basic documents regarding the management of material resources.

Item 3, deals with established rules and regulations for proper functioning of martial resources of the schools. Accordingly in item 3, a considerable proportion of the respondents, that is 66(40%) of teachers 21(32.8%) of administrative staff members responded positively. On the other hand, the majority respondents that is, 88(53.33%) of teachers and 40(62.50%) of administrative workers responded negatively. In support to this, the chi-square test employed (x^2=2.32) < table value of 5.99) in this case shows there was not a significant variation between the two respondents perceptions on issues of policy guidelines and regulations of material resources management. This indicts that there were inadequate and no clearly established rules and regulations serves for different activities of material resources management in the school system. Even if the policy exists, most of the staff members were not aware of its existence.

Table 3: Competence and Skill of School Leaders.

NO		Res	Responses												X^2
			VH		H		M		L		VL		Total		
			F	%	F	%	F	%	F	%	F	%	F	%	
1	Are material resource positions of the school adequately staffed?	T	4	2.4	4	2.4	49	29.7	96	58.2	12	7.3	165	72.1	6.77
		AW	-	-	10	15.6	22	34.4	30	46.8	2	3.2	64	27.9	
		Total	4	1.8	14	6.1	71	31	126	55.0	14	6.1	229	100	
2	Have school leaders the necessary skill and competence in resources management?	T	4	2.4	11	6.7	36	21.8	111	67.3	3	1.8	165	72.1	5.18
		AW	2	3.1	6	9.4	22	34.4	34	53.1	-	-	64	27.9	
		Total	6	2.6	17	7.4	58	25.3	145	63.3	3	1.3	229	100	

Significant difference level =0.05 DF= Degree of freedom

$DF_{4=9.49}$

As it shown in table 3 of item 1, deals with issues related to responsible bodies for materials management and their knowledge and skill in the system. The majority of the respondents that is 96 (58.18) of teachers and 30 (46.88%) of administrative staff members conform that there is a low degree of assignment of the right personnel. However, only four of teachers and 10 (15.63%) of administrative workers confirm that high degree of assignment of the right personnel in the school system. And also it shows 49 (29.70%) from teachers and 22 (34.38%) from administrative staff members as there was a medium degree of supplies of personnel in the school system. In support to this the chi-square test employed (X^2=6.77 < table value of 9.49) shows there was not significant difference between the two groups of respondents. Such similarity of respondents between teachers and administrative workers indicts that the low levels of materials management in terms of assignment the right personnel.

From observation and interview made by the researcher, it seems that the responders did not consider the scientific principles of materials resources management. Then, the perception which was given by the respondents may be reflecting the existing knowledge and skill of the respondents on material resources management was inadequate.

Item 2 in the above table 3, is related to the school leaders competence and abilities to manage material resources in the school system. In this case, the majority of the respondents that is 114 (68.27%) of teachers and 34 (53.13%) of administrative workers agreed that a low power of ability and competence to mange material resources in the school system. However, only 15(9.09%) of teachers and 8 (12.5) of administrative workers conform that the existing managerial knowledge and competence had a high power of ability to manage material resources in the school system. This finding was also supported by the chi-square test employed (X^2=5.18 < table value of 9.49) shows there was not significant difference between the two groups of respondents. This indicates a similarity of responses between teachers and administrative staff members regarding the level of managerial knowledge and competence to manage material resources of the school.

As observation and interview made by the researcher shows only, 5 principals attend educational administration program others were not attended a long term or short term training program in material resources management. On the other hand, there were no seminars, work shops and other

training and development programs given for teachers and other personnel which are related to material resources management activities. This calls for the concerned bodies to think over preparing of training and development for school management in order to have adequate skills and knowledge on the issues. This can be also related to Dattta, (1986:11-15) states that there is a need of professional training and that any one can perform and manage material resources in an educational organization without any problem.

Table 4: The degree of participation of School Leaders and Teachers in material resources management

No	Item	Respondents							Cal X^2
		Teachers		Administrative workers		Grand	Grand		
1	As a school, member in what area of managerial activities do you participate?	no	Mean	no	Mean	Total	Mean	Rank	
	A. Need assessment	386	2.34	189	2.95	575	2.51	6	
	B. planning	881	5.34	409	6.39	1290	5.63	1	
	C. Purchasing	711	4.31	332	5.18	1043	4.55	3	
	D. Allocation	686	4.16	282	4.40	968	4.23	4	
	E. Distribution	381	2.31	185	2.89	566	2.47	7	
	F. Storage	395	2.39	229	3.58	624	2.72	5	
	G. Controlling	847	5.13	329	5.14	1176	5.13	2	
	Average	612.42		279.29		891.71	4.00		3.036

$Df_{1=3.84}$

N=165+64=229

Average mean=4

Table 4 deals with the degree of participation in area of managerial functions in the school system. Accordingly the computed mean rank order of school leaders and teachers response reveals that planning and controlling managerial activities that, they take the largest share of their school work time highly performed and given more attention in the school system than other managerial activities in the given order of the above table. And they ranked first and second respectively.

On the other hand managerial activities like storage, need assessment and distribution of material resources were below the average of the grand mean value of the respondent response and hence ranked fifth, sixth and seventh in the given table of mean order respectively. In support to this, the chi-squire test result shows that there wasn't significant difference between the two group of respondents.

As it was clearly observed, storage, need assessment and distribution of material resources were given insignificant attention. This might be because of lack of the knowledge of planning. Therefore, it could be safe to conclude that materials and equipment plans were not based on objective data.

Moreover, the researcher made document analysis and interview of principals. He found that the school plan and budget was prepared only by the school board committee without any information from the teachers and workers of the school. This indicates that, there was no active participation of teachers and workers during the preparation of the school plan. And need assessment of the school members was not performed.

Still, the consideration of the grand mean order of the two managerial functions confirmed with that of the above table. As such, planning and controlling were the most frequently performed managerial activities. However, storage, need assessment and distribution of material resources were reactively poorly intervened items.

In general, schools may have to encourage active participation of all members of the all members of the school, in every managerial activities in order to promote the teaching-learning process. But, it is not yet practical in the school system.

Table 5: Objectives of Material Resources Management

No	Items	Responses													
		Respondent	SA		A		N		DA		SD		Total		Grand mean	Rank
			F	%	F	%	F	%	F	%	F	%	F	%		
1	There is proper handling of available resources	AW	-	-	19	29.68	5	7.81	37	57.8	3	4.68	170	100	2.66	4
2	There isn't interrupting teaching-learning process	AW	5	7.81	11	17.18	8	12.5	40	62.5	-	-	173	100	2.70	3
3	There is purchasing at a minimum cost of supplies	Aw	3	4.68	13	20.38	8	12.5	40	62.5	-	-	171	100	2.67	5
4	There is distributing materials resources properly	Aw	2	3.12	41	64.06	5	7.81	16	25	-	-	221	100	3.45	2
5	There is controlling unnecessary storage of inventories.	AW	15	23.44	43	67.18	2	3.12	10	15.62	-	-	277	100	4.32	1
6	There is determining proper decision	Aw	5	7.81	4	6.25	15	23.4	37	57.8	-	-	160	100	2.5	6
		Average											192		3.	

Key: 5= Strongly agree 4= Agree 3=Neutral 2= Disagree 1= Strongly disagree

AW=Administrative workers

N= 64 Average mean=3.0

Table 5 deals with the rank order of importance of proper material resources management activities. Accordingly, the majority of administrative staff members that is .57 percent on issues of proper handling of a variable resources, 62 present on purchasing at a minimum cost of supplies, and 57 percent on the determination of proper decisions were not agreed to be the primary objective of material resources management of the school system. And they ranked fourth, fifth and sixth respectively. On the other hand, 67 percent on controlling unnecessary storage of inventories and 64 percent on proper distribution of material resources were agreed as the primary objectives of material resources management of the school system. And they were ranked first and second respectively on the above table. But as Data (1998:31) States that the ultimate goal of materials management is reducing cost and maximizing profit. However, purchasing at a minimum cost of supplies is ranked fifth by administrative staff members. This shows lack of awareness in under standing material resource management in terms of cost.

On the other side, observation made by the researchers on the field work and responses from the interview and open-ended questions suggest the major problems in identifying importance of material resources activities of the schools as follows:

- Failure to identify problem areas and prioritize the problems and importance of the managerial activities depending up on the resources available to achieve the ultimate goal of the school.
- Bias towards the attention of the political bodies at the expense of equally other important matters.
- Lack of knowledge and skill of educational leaders on material resources management.

This indicts that most of the material resources management activities in the school system were not performed efficiently. Therefore, when we look at the general trend of the responses it is clearly observed that the managerial function is hard to expect the achievements of the overall organizational objectives. In this regard, overall education system has lost the proper performance of managing material resources in the school systems.

Table 6: Material Resources Planning

No	Item	Respondents						Cal. Value of X^2
		Teachers		Administrative workers		Total		
		No	%	No	%	No	%	
1	Who is the responsible body to plan material resources in your school?							
	a. school principals	56	33.94	39	60.94	95	41.48	
	b. school board of education	29	17.57	6	9.37	35	15.28	
	c. school management committee.	46	27..88	13	20.31	59	25.76	
	d. teaching and administrative staff jointly	34	20.6	6	9.37	40	17.46	
	e. others	-	-	-	-	-	-	
	Total	165	100	64	100	229	100	14.45
2	What is the level of coordination and communication among concerned bodies during planning?							
	a. very high	6	3.64	-	-	6	2.62	
	b. high	19	11.51	10	15.63	29	12.66	
	c. medium	49	29.70	16	.25	65	28.38	
	d. low	80	48.40	36	.5625	116	50.65	
	e. very low	11	6.67	2	3.13	13	5.68	
	Total	165	100	64	100	229	100	7.58
3	To what extent does your planning exercise in your school effective?							
	a. very high	5	3.03	1	1.56	6	2.62	
	b. high	11	6.67	15	23.43	26	11.35	
	c. medium	35	21.21	21	32.81	56	24.45	
	d. low	102	61.81	26	40.63	128	55.90	
	e. very low	12	7.27	1	1.56	13	5.68	
	Total	165	100	64	100	229	100	7.10

$DF_{4=}$ 9.49

The above table 6, relates to perception of respondents on materials planning. In item 1 with regard to the availability of responsible body for the preparation of martial resources planning. Accordingly, the majority proportion of the respondents 56(33.94%) of teachers and 39(60%)of administrative workers asserted that school principals were the responsible body for planning of material resources. Considerable proportion of the respondents 46(27.88%), 13(20.31%) of teachers and administrative workers respectively asserted that school management committees were the responsible body for planning of material resources. And the less number 34(20.6%) of teachers and 6(9.34%) of administrative staff members conformed that the teaching and administrative staff were the responsible body for planning of material resources and the rest others were the least asserted that for the responsible body of planning of material resources preparation of material resources planning made by school board, and teaching and administrative staff was not significantly observed by the given respondents. In support to this, the chi-square test employed (X^2=14.45 > the table-value of 9.49) this indicates that there is a significant variation between the two groups of respondents. The difference seems to have resulted from lack of information that teachers have about preparation of marital resources of the schools.

Item 2, deals with about the level of coordination and communication efforts of school leaders. The majority portion of the respondents responses that is 80(48.40%) of teachers and 36(.5625%) of administrative staff members, similarly 11(6.67%) of teachers and 2(3.13%) of administrative staff members was confirmed that the coordination and communication efforts among school leaders, teachers and other workers are low and very low respectively. On the other hand, only 19(11.51%) of teachers and 10(15.63%) of administrative staff members were asserted that the coordination can communication effort during planning is high. A considerable number of responses that is 49(29.70%) of teachers and 16(25%) of administrative workers responded that moderate effort of coordination and communication during planning among concerned bodies. In support to this, the chi-square test employed (X^2=7.58 < table value of 9.49) for this item shows that there is not significant difference between the two groups of respondents.
This indicates the coordination and two-way communication efforts among the concerned bodies during the preparation of planning in schools was low.

Therefore, the information indicates that, the response of the school leaders was almost the same that they made low effort in utilizing function to the implementation of the teaching-learning process. Hence from the above given data and chi-square test result one can deduce that the principals were not transparent in utilization of resources and they don't call staff members to participate in the utilization of materials resource planning that helps to provide quality education.

Item 3, deals with the degree of effectiveness of material resources planning. In this regard the majority of the respondents, that is 102(61.81%) of teachers and 26(40.63%) of administrative staff members asserted that the degree of effectiveness of planning were exercised low in the school system. However, only 11(6.67%) of teachers and 15(23.43%) of administrative staff members confirmed that a high degree of effective planning exercised. In support to this, the chi-squire test employed (X^2=7.10 < table-value of 9.49) for this item shows that there was not significant difference among the given respondents. Such similarity of responses between teachers and administrative staff members regarding the low degree of effectiveness of planning exercised made by school system.

On the other side, responses from the interview and open-ended questions suggest the major problems in educational planning as follows: lack of knowledge and abilities of educational managers in planning; plans are too ambitions; failure to depend on carefully gathered and relevant data; the budget allocation bodies give insignificant attention for material resources management. As a result negatively affect the teaching-learning process of the school system. lack of coordination and communication among the concerned bodies to prepare a school plan.
On top of this, the researcher made observations on the planning activity. There was no a planning exercise of material resources independently in schools. It was done by a aggregate plan with the schools annual plan without a participation of teaching, administrative staff and others concerned bodies. Therefore, it is safe to say that its implementation was low.

This means that the system has not yet developed on effective planning exercise. In this respect, Datta's (1986:11) states that material planning is primarily involved in the form ulation of an intelligent scheme of action designed to accomplish its objectives effectively and economically is

not yet practical in the school system. This calls the involvement of all concerned bodies in preparation of the material resources plan for its better and efficient implementation in the school system.

Table 7: Material resources purchasing

No	Item	Res.	Responses												X^2
			VH		H		M		L		VL		Total		
1	Are the purchasing rules of the school system workable effectively?	T	-	-	13	7.88	56	33.94	85	51.5	11	6.67	165	100	7.14
		AW	3	4.69	12	18.7	20	31.25	28	43.75	1	1.56	64	100	
		T	3	1.31	25	10.97	76	33.18	113	5.0	12	5.24	165	100	
2	Did the material purchase able to satisfy the needs of teaching-learning process?	T	1	0.6	7	4.29	31	18.78	121	73.33	4	2.42	165	100	8.15
		AW	-	-	5	7.81	20	31.25	35	54.68	4	6.25	64	100	
		T	1	0.4	12	5.24	51	22.27	156	68.12	8	3.49	229	100	
3	If your response to question "2" is "low' to what extent the teaching–learning process negatively affected?	T	4	2.42	32	19.39	33	20	92	55.76	3	1.81	165	100	8.435
		AW	2	3.13	7	10.94	9	14.06	54	84.38	1	1.56	64	100	
		T	6	2.62	39	17.03	42	18.34	146	63.76	4	1.75	229	100	

N.B

AW= Administrative workers VH= very high H= high M= medium l=low VL=very low

Df= Degree of freedom

significance difference level=0.05

$DF_{4= 9.49}$

Table 7 deals with the perception of teachers and administrative staff members to wards the following purchasing issues. In item 1, the majority 85(51.50%) and 28(43.75%) of administrative staff members and 11(6.67%) of teachers and 1(1.56%) administrative staff

members conformed that the existing purchasing rules or regulations were exercised "low" and "very low' respectively. However, only 13(7.88%) of teachers and 12(18.75%), 3(4.64%) of administrative staff members asserted that the existing purchasing rules were high and very high exercised respectively in the school system and also there was 56(33.94%) of teachers and 20(31.25%) of administrative staff members conformed that the existing purchasing rules and regulations are medium. In support to this, the chi-square test employed(X^2=7.14 < table-value of 9.49) for this item shows that there is no significant difference between the two groups of respondents. This implies a similarity of responses between teachers and administrative workers regarding the low level of exercised the purchasing rules in the school system.

Therefore, based on the given response, it is safe to say that the existing purchasing guideline is not appropriate to applying the school system. Thus, it calls for better purchasing guideline to run the purchasing activities in the school system which is one important point to be noted.

In item 2, the majority of the respondents, that is 121(73.335) from teachers 35(54.68%) of administrative workers asserted that the purchasing made in the school system was not appropriate to the needs and interest of teaching-learning process. On the other hand, 7(4.24%) of teachers and 5(7.81%) of administrative workers asserted that the purchasing made in the school system was appropriate to the needs and interest of teaching-learning process. In support to this, the chi-square test employed (X^2=8.15 < table-value 9.49) for this item shows that there was no significant variation between the two groups of respondents. Therefore, it is possible to conclude that the purchasing made by the school system is more or less not appropriate to the needs and interests of the teaching-learning process. In this regard, data (1986:149) states that purchasing is providing the proper quality and quantity of educational materials that enable and support the achievement of instructional goals. But, it is not appropriately applied in the school system.

In item 3, the majority of the respondents, that is 92(55.76%) of teachers and 54(84.38%) of administrative workers confirmed that the teaching- learning process in the school system was negatively affected. On the other hand, 32(19.34%) of teachers and 7(10.94%) of administrative workers were asserted positively. In support to this the chi-squire test employed (X^2=8.435 < table value of 9.49) shows that there was no significant difference between the two groups of respondent teachers and administrative workers. Therefore, from the responses and chi-squire test

result, it is possible to infer that there is scarcity of purchased material resources by the school system and also a problem of proper utilization of the existing material resources.

Thus, it is possible to say there is a shortage of purchased material resources that affects negatively to satisfy the needs and interests of the teaching -learning process in the school system. In support to this, UNESCO (1992:158-159) stated that the effectiveness and efficiency of the education system to great depends on the amount and quality of instructional material available is not yet practical in the school system. On the other side, regarding purchasing, in the open-ended question, these different groups also stated some points as summarized below:

- Shortage of budget affects the quality of the purchases made in the school system.
- Lack of skilled purchasing personnel highly affects the purchasing made on the school system.
- In most cases the purchasing body focuses only on the quantity rather than the quality of materials purchased.
- Purchasing decisions mostly made individually.
- Purchasing made in the school system is not made after the necessary need assessment. These are some of the important points noted by most of the respondents.

Table 8: Material Resources Allocation and Distribution

No	Item	Res	Responses												X^2
			VH		H		M		L		VL		Total		
1	Procedures of allocation materials	T	3	1.8	30	18.18	52	31.52	75	45.45	5	3.03	165	100	9.40
		AW	4	6.25	7	10.94	20	31.25	28	43.75	5	7.81	64	100	
		T	7	3.05	37	16.15	72	31.44	103	44.97	10	4.37	229	100	
2	School materials distribution process	T	4	2.42	30	18.18	32	19.39	95	57.51	4	2.42	165	100	9.17
		AW	2	3.13	11	17.18	16	25	28	43.75	7	10.94	64	100	
		T	6	2.62	41	17.90	48	20.96	123	53.71	11	4.80	229	100	

$DF_{4=}$ 9.49

Table 8, relies with perception of respondents towards material resource allocation and distribution. In item 1, respondents were asked about to what extent does the existing priority allocation of the resources exercised in the system. In this case, 75(45.45) of teachers and 28(43.75%) of administrative staff members asserted that the existing priority allocation procedures of resources were not appropriate. A considerable proportion of respondents that is 30(18.18%) of teachers, 7(10.94%) of administrative staff members were confirmed that the existing priority allocation procedures of respondents were in appropriate way of utilized. And also there was 52(31.52%) of teachers, 20(31.25%) of administrative workers were responded medium utilization of the existing allocation procedures of materials resources in the system. In support to this, the chi-square test employed (X^2=9.40 < table value of 9.49) also showed there was no significant difference between the two groups of respondents teachers and administrative workers. Such relationship of responses of teachers and administrative workers indicates the low level of utilization of material resources allocation procedure in the school system. As to the researcher is observation and document analysis, there was some material resource allocation guidelines in some of the sample schools, but they were inefficient to use them effectively.

Item 2, of the same table deals with the degree of effectiveness in distribution and delivery of material resources. The majority respondents' replied 95(57.50%) of teachers and 28(43.75%) of administrative workers confirmed that the distribution and delivery of material resources were not exercised effectively. On the other hand, 30(18.18%) of teachers and 11(17.18%) of administrative workers confirmed that the distribution and delivery of material resources were exercised effectively. And also there was 32(19.39%) of teachers and 16(25%) of administrative workers were confirmed medium utilize degree of effectiveness in distribution material resources in the school system. In support to this, the chi-square test employed (X^2=9.17 < table value of 9.49) for this item shows that there is no significant difference between the two groups of respondents on the issues of effective distribution of material resources in the school system. In relation to the above observations, respondents had also given the following suggestions to the open-ended questions: The only responsible body for material resources distribution and delivery was the store keeper man in the school system's

- Late distribution and delivery of text books to students were the main problems observed in the school system
- Lack of decision in material distribution and delivery has created conflict among different groups.
- Lack of transport facility was the major problem in the process of materials distribution and delivery.

Most of the time material resources were distributed randomly. This is due to lack of full information in the school system. Therefore, based on the given data including the chi-square results and observations made by the researcher, it is safe to say that ineffectiveness of educational material resources distribution and delivery was the common practice in the school system. Thus, in this regard the overall management of material resources distribution and delivery requires certain improvement in order to facilitate the teaching- learning process.

Table 9: The Availability of Material Resources of the school

No	Item	Respondents	Highly coincide		Moderately coincide		Low coincide		Not coincide		Total		Cal. value of X^2
			No	%	No	%	No	%	No	%	No	%	
1	In your school system to what extent do you think the available materials coincide with the predetermined objectives?	Teachers	11	6.67	59	35.7	91	55.2	4	2.4	165	100	
		A W	3	4.7	24	37.5	35	54.7	2	3.1	64	100	
		Total	14	6.1	83	36.2	126.1	55.1	6	2.6	229	100	1.329

$DF_{3=7.81}$

Table 9, in item 1 deals with issues of material resources availability and utilization. In this case, the majority of the respondents that is 91(55.15%) of teachers 35(54.68%) of administrative workers confirmed that the existing available materials did not coincide with that predetermined objectives of the educational system, on the other hand 11(6.67%) of teachers and 3(4.68%) of administrative workers asserted that the existing and available materials are highly coincide with the predetermined objectives of the school system. And some considerable proportion of responses that is, 59(35.75%) of teachers and 24(37.50%) of administrative staff members confirmed that the available material resources were moderately coincide to the predetermine objectives of the school system. In support to this, the chi-square test employed (X^2=1.329 < table-value of 7.81) for this item shows there is not significant difference between the two groups of respondent teachers and administrative workers. And the chi-square test result also indicates there is significant relationship and similarity of responses creating between the perceptions of material resources availability and utilization of the given groups.

Therefore, from the given response, observations by the researcher and chi-square test results, it is possible to say that the available materials in the school system were not appropriate and coincide with the predetermine objectives of the teaching learning process.

Table 10: The effective Utilization of Material Resources of the school

No	Items	Respondents	VH		H		M		L		VL		Total		Cal. value of X^2
			No	%	No	%	No	%	No	%	No	%	No	%	
1	To what extent do you think the available materials in the school system are effectively used?	Teachers	5	3.1	22	13.3	49	29.7	85	51.5	4	2.4	165	100	
		A W	1	1.5	14	21.8	16	25	31	48.4	2	3.1	64	100	
		Total	6	2.6	36	15.7	65	28.4	116	50.6	6	2.6	229	100	2.99

$DF_{4=9.49}$

Item 2, deals with issues effective utilization of the available material resources. In this case, the majority respondents that is 85(51.50%) of teachers and 31(48.44%) of administrative workers agreed that the effective utilization of the available material resources were low. However, 22(13.33%) of teachers and 14(21.88%) of administrative workers confirmed that the effective utilization of the available materials resources were high. In support to this, the chi-square test employed (X^2=2.996 < table-value of 9.49) in this regard indicates that is not significant difference between the attitudes to words the effective utilization of available materials of the two groups of respondents.

Therefore, from the respondents and chi-square test results, it is possible to conclude that in some of the given sample areas there was scarcity of material resources in some others there was a problem of proper utilization of the existing material resources. In support to this, Harris (1985:173) has emphasized on the need for adequate available and quality of materials for effectively implementation of the curriculum is not yet practical in the school system.

Table 11: The Capacity of the school in Facilities and Equipments

Item	Res	Responses												X^2
		VH		H		M		L		VL		Total		
		No	%	no	%	no	%	no	%	no	%	no	%	
To what extent the following facilitates of the school adequate with necessary materials resources and equipment?														
Library	T	11	6.67	31	18.78	54	32.7	61	36.9	6	3.6	165	100	4.09
	AW	5	7.81	12	18.75	13	20.3	31	48.4	3	4.6	64	100	
	To	16	6.99	43	18.77	67	29.2	92	40.2	9	3.9	229	100	
Laboratory	T	4	2.42	15	9.09	48	29.1	81	49.1	27	16.3	165	100	8.14
	Aw	6	9.37	5	7.81	11	17.2	37	57.8	5	7.8	64	100	
	To	10	4.37	20	8.73	59	25.7	118	51.5	32	13.9	229	100	
Pedagogical center	T	2	1.21	13	8.73	44	26.6	81	49.1	25	15.2	165	100	9.23
	AW	3	4.68	10	15.62	9	14.1	37	57.8	5	7.8	64	100	
	To	5	2..18	23	10..04	53	23.1	118	51.5	30	13.1	229	100	
Store-room	T	2	1.21	22	13.33	40	24.2	92	55.7	9	5.4	165	100	7.64
	AW	4	6.25	6	9.37	22	34.4	29	45.3	3	4.6	64	100	
	T	6	2.62	28	12.23	62	27.1	121	52.8	12	5.2	229	100	
Sport department	T	2	1.21	23	13.94	37	22.4	90	54.5	12	7.3	165	100	9.14
	Aw	6	9.37	7	10.94	19	29.6	28	43.7	4	6.2	64	100	
	To	8	3.49	30	13.10	56	24.4	118	51.5	16	6.98	229	100	

$DF_{4=9.49}$

Table 11, deals with the capacity of school in facilities and equipments is essential for proper functioning of teaching learning process. In connection to item 1.1, the majority of the respondents that is 61(36.96%) of teachers and 31(48.14%) of administrative staff members confirmed that reference books in libraries of sample schools were not adequately available to students and teachers of the school in addition to this, laboratories and pedagogical centers of those schools were 81(49.09%) of teachers and 37(57.80%) of administrative staff mummers asserted that there was lack of laboratory equipments, chemicals and teaching aids to facilitate the teaching-learning process of the school system. On the other hand, 31(18.78%), 15(9.09%) and 13(7.88%) of teachers and `12(18.75%), 5(7.8%) and 10(15.62%) of administrative staff members respectively asserted that there was adequate laboratory equipments, chemicals and teaching aids of the schools. In support to this, the chi-square test results for this item shows there is not significant difference between the two groups of respondents.

As the table indicates and the researcher made observation in the field work found that the above mentioned educational inputs were inadequate as compared to the number of students and teachers of the sample schools.

Therefore, this indicates that secondary schools were not adequately equipped with the necessary educational inputs that enable them to provide quality education. In this respect MOE (2002:24) noted, to ensure quality of education, students should have obtained adequate text books, laboratory equipments and other educational materials should be given a great emphasis. But, it is not yet practical in the school system.

Item 1.4 and 1.5 deals with issues store-room management and sport department of the sample schools. In this case, the majority respondents that is 92(55.76%), 90(54.50%) of teachers and 29(45.31%), 28(43.70%) of administrative staff members respectively asserted that the capacity of store-room to accommodate the available properties is low. On the other hand, 22(13.33%), 23(13.39%) of teachers and 6(9.37%), 7(10.94%) of administrative staff members respectively high. In support to this the chi-square test results for this item shows there is not significant difference between the two groups of respondents.

In addition to this, interview held with principals and observation was conducted by the researcher himself reveled that store-rooms are not large enough to accommodate the proprieties when large quantities are ordered. Hence it could be hard to believe that schools have sufficient space for storing their materials and equipment and different sport field games such as foot ball, basket ball, and other sport equipments. As a result of this, the properties of schools without enough spacing of store rooms would have been exposed to damage, loss and miss management of the material resources of schools.

In general, this indicates that schools were not adequately equipped with the necessary educational inputs that enable them to improve the quality of learning in sample secondary schools.

Table 12: Management of Ware housing and Disposal issues.

No	Item	Res	Responses												X^2
			VH		H		M		L		VL		Total		
			no	%	no	%	No	%	no	%	no	%	no	%	
1	Are properties in store-room properly recorded?	T	2	1.21	23	13.9	54	32.7	82	49.7	2	1.2	165	100	
		AW	3	4.7	7	10.9	15	23.4	35	54.7	4	6.3	64	100	
		To	5	7.8	30	13.1	69	30.1	117	51.1	6	2.6	229	100	8.71
2	To what extent dose storages system protects the school materials form obsolete or surplus disposal?	T	2	1.2	16	9.7	47	28.4	109	66.1	1	0.6	165	100	
		AW	2	3.1	9	14.1	13	20.3	40	62.5	-	-	64	100	
		To	4	1.7	25	10.9	60	26.2	149	65.1	1	0.4	229	100	3.26
3	To what extent does the responsible body of the school has knowledge in disposing educational materials?	T	1	0.6	20	12.1	29	17.5	93	56.4	12	7.3	165	100	
		AW	-	-	10	15.6	25	39.1	28	43.7	1	1.6	64	100	
		To	1	0.4	30	13.1	54	23.3	121	52.8	13	5.7	229	100	9.42

$DF_{4=9.49}$

Table 12, is deals with the precipitin of respondents towards issues relate to warehousing and disposal of material resources. Item 1, deals with 82(49.70%) of teachers and 35(54.68%) of administrative workers confirmed that educational materials of school did not handled in a good arrangement and recording system in their store. However only 23(13.94%) of teacher sand 7(10.94%) of administrative workers confirmed that educational material resources of the school were handled in a good arrangement and recording system. And some considerable materials that is 54(32.72%) of teachers and 15(23.43%) of the school handled in a moderately way. In support to this, the chi-square test employed (X^2=8.71 < table-value of 9.49) for this item shows that is not significant differences between the two groups of respondents that are teachers and administrative workers.

As the researcher observes in the field works in most all the sample school stores were poor recording and handling system of material resources. Therefore, this problem indicates that without properly handling and recording system of materials of the school, it is difficult to facilitate the teaching-learning process.

On the other side, respondents from the interview and open-ended questions suggest the major problems of were housing as follows:

- There were not qualified personnel in the school system.
- There was lack of guidelines to run the store properly.
- There was not training services concerning this area of activities.
- There was lack of proper handling and recording system of material resources in secondary schools stores.

Item 2, deals with the main issue is not only about the availability of warehousing but also the kind of quality of warehousing. Accordingly, the majority of the respondents that is 109(66.06%) of teachers and 40(62.5%) of administrative workers indicated that the degree of protection of educational materials from damage was low. On the other side, 16(9.70) of teachers and 9(14.06%) of administrative workers confirmed that the degree of protection of educational materials from damage was good. When we observe the chi-square test result (X^2=3.26 < table-value 9.49) it shows that there wasn't any significant difference between the two groups of respondents. This indicates that warehouses are poorly built and educational materials were exposed easily to damage. So it is possible to conclude that there is shortage of proper storage management in the school system. As the result it is difficult to protect material resources from damage and to manage properly in the school system.

Item 3, deals with issues about disposals of educational materials. In this case, the majority respondents that is 93(56.36%) of teachers and 28(43.75%) of administrative workers confirmed that the responsible body of the school has lock of knowledge in disposing educational materials. However, only 20(12.13%) of teachers and 10(15.62%) of administrative workers confirmed that the skill in deposing scrape and unused educational materials were high and moderate ability and skill in disposing scrape and unused educational materials. In this case the chi-square test result (X^2=9.42 < table value of 9.49) for this item shows that there wasn't any significant difference between the two groups of respondents that are teachers and administrative staff members of the school. Such similarity of responses between teacher sand administrative staff members indicate that the responsible body for the school has low level of ability and skill in managing and in disposing scrape and unused educational materials. On the other hand, on the interviewee and the open-ended questions, the respondents were suggested as follows:

- There was lack of knowledge and skill how to dispose to unused educational materials of the school.
- There was not on time disposal of unused materials.
- There was not existing a clear guideline for disposing unused materials.

As the researcher made an observation in the store, pedagogical center and laboratory rooms, there were too much accumulated unused educational materials in the sample schools. This additional problem made by no dispose of unused materials in time affects the smooth implementation of teaching-learning process of the school system.

Therefore, it is possible to say that the disposing activity of unused educational materials in time is poorly served in secondary school system.

In this respect, Dobler (1996:603-607) has emphasized that the wear out or technologically obsolete materials should be disposed in time in order to facilitate teaching-learning activities but, there was not on time disposal of unused educational materials in the school system.

Table 13: Factors affecting the management of material resources activities of the school

No	Item	Respondents							Cal-value of X^2
1	Which factors can affect the proper utilization of material resources management of the school seriously?	Teachers		Administrative workers		Grand total	Grand mean	Rank	
		no	Mean	no	Mean	no			
1	a. Miss use of educational material	874	5.29	381	5.95	1255	5.4	1	
	b. Delay of time in obtaining educational materials	551	3.34	206	3.22	757	3.31	5	
	c. In convenient storage	663	4.02	275	4.29	938	4.10	4	
	d. Lack of adequate personnel	740	4.48	332	5.19	1072	4.68	3	
	e. Inadequate inventory	530	3.21	217	3.39	747	3.26	6	
	f. Lack of training and development regarding materials management	820	4.97	310	4.84	1130	4.94	2	
	g. Schrage of budget	4.44	2.69	159	2.50	603	2.63	7	
	Average	660.28		26857		928.85	400		0.43

N=165+64=229

Df_1=3.84

Average mean=4.0

Table 12 deals with the major factors that hinder the effective performance of teachers and administrative staff members on the management of material resources of the school.

According, the computed mean order of the above table both teachers and administrative staff member response results that miss use of educational materials, lack of training and development regarding materials management and lack of adequate qualified personnel's are the most critical factors that hinder the effective performance of teachers and administrative workers on the management of material resources of the schools. And hence, ranked first, second and third respectively. On the other hand, factors like delay of time in obtaining educational materials, inadequate inventory and shortage of budget were relatively less influence factors to the proper performance and utilization of materials resources in the school systems. And hence, ranked fifth, sixth and seventh respectively.

From all the variables and respondents answers and grand mean rank order results indicates that above average mean score indicating its higher influential role of the factors that affects the proper performance and utilization of materials resources management during the teaching learning process in the school system. In support to this, the chi-square employed ($x2 = .0.43 <$ table value of 3.84) this shows there was not significant difference between the two groups of respondents.

From this one can conclude secondary schools seemed relatively unable to perform and use material resources effectively and efficiently that enable them to provide quality education. In light of the respondents were asked through interview and open-ended questions to list down the major constraints that challenge the teaching learning process of the school. Accordingly, the respondents pointed out the following problems:

- Lack of proper coordination and two-way communication among school leaders, teachers and workers to carry out the teaching-learning process.
- In adequacy is observed in the number of qualified personnel in the school positions
- Shortage of students text books, references and laboratory equipments.

This indicates that most of the material resources management activities in the school system were not performed effectively. Therefore, when we look at the general trend of the responses it is clearly observed that the managerial functions is hard to expect the achievements of the overall organizational objectives in this regard, overall education system has lost the proper performance of managing material resources in the school system.

Chapter Five

V. Summary, Conclusions and Recommendations

1. Summary of Major Findings

The main aim of this study was to look into the management and manner of utilization of education materials and equipment in secondary schools of southern zone of Tigray. In order to achieve the purpose of this study, basic questions were raised addressing the areas such as the extent of utilization of the available materials, effectiveness of material resources management activities, the problems encountered in materials and equipment management, the availability of educational inputs and the qualification of personnel assigned to manage school material resources. The research design utilized in this study was descriptive survey method. The study was conducted using questionnaires, interviews, observation and documentary analysis as data gathering instruments. The subjects for this study were teachers and administrative staff members. They were chosen using sampling procedures such as a simple random sampling, availability sampling and purposive sampling.

The study was carried out in eight secondary schools of southern zone of Tigray. From the sampled schools, 229 respondents were expected to fill in the questionnaires from the two different groups of respondents. Out of the total number of questionnaires dispatched 100 percent by both groups of respondents had correctly filled in and returned the questionnaires.

In addition, interview questions were answered by school principals. In regard to observation and document analysis, the researcher himself was gathered necessary information from pertinent school document, materials, facilities and school environment.

The data obtained from different sources were analyzed using statistical tools such as percentages, weighted mean and chi-square test analysis. Depending on the results of the analysis made, the following major findings were obtained and summarized as follows:

1. As the finding of the study indicates, the participation of females in teaching and managing activities in all eight sample schools of the study was found to be low. Concerning age and service most of the teachers are younger and less services than the administrative staff members.

2. It has been observed that there is no responsible body for material resources management in the secondary schools under study. Although there is an idle committee that is responsible for material resources management, the storekeeper is only accountable person in actual practice.
3. Shortage of available material resources is a main problem that hinders the proper performance of the teaching-learning process in the school system. Lack of proper material resources policy guidelines also affects material resources management. The impacts of non-existence of the policy guidelines have influenced the other all performance of material resources management activities.
4. The majority of the respondents asserted that was 58.18% from teachers and 46.88% from administrative staff members confirmed that there is a low degree of assignment of the right personnel. And the concerned bodies of school management have a low level of ability and competence to manage material resources in the school system.
5. Among the managerial functions to be discharged by educational leaders, the tasks dominantly performed by principals were materials planning and controlling. On the contrary, storage, need assessment and distribution of material resources were given insignificant attention.
6. The majority of respondents, that is 61.81% of teachers and 40.63% of administrative staff members asserted that the level of effectiveness of planning was low in the school system. Besides, the coordination and two-way of communication efforts among school leaders, teachers and other workers was also low.
7. The majority of respondents that was 51.50% form teachers and 43.75% from administrative staff members confirmed that the existing purchasing rules were exercised in a low level.
8. There was no organized guideline to facilitate material resources allocation and distribution. There were not any written strategies for material resources, distribution and allocation. The low degree of effectiveness of material resources, distribution, and delivery were the common problem observed in the actual practice. In addition, as a result of poor two-way communication and information exchange between schools and woredas, material resources and equipment were not properly allocated, distributed and delivered on time to the users.

9. Material resources were not given proper attention. They were not properly controlled like other financial and human elements. Inventory control was randomly performed most of the time. And also there was lack of proper guideline, knowledge and still for proper utilization of material resources in the school system.
10. Shortage of available material resources, facilities and equipments in the school library, laboratories and pedagogical centers is another set back that hinders the performance of the teaching-learning process.
11. The problem of warehousing was the main cause for improper handling and using of material resources. Time and space were the two major problems consider in the process. Materials were not properly identified and recorded in most of the schools. The existing warehousing in the school system was not designed for purpose of storage. As a result material resources were not properly protected from damage. And disposing scrape and unused educational materials were not disposed on time.

2. Conclusions

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

1. This study has attempted to investigate major problem areas and currant practices of secondary schools in southern zone of Tigray in relation to material resources management. The findings of the present study indicates that, there is a need of professional training by arranging a work shop, seminar and other training and development programs which could be provided by the Woreda educational department and schools. On as to how to use and maintain educational materials that help school leaders can perform and manage material resources in schools effectively and efficiently. But majority of the teachers and administrative staff members asserted that they had not attended any long range or short range training specifically prepared for material resources and equipment utilization. Failure to provide such practices might be because there is a perception of material resources management can be done by any lay men without special skill. As a result, the responsible bodies in schools were not able to properly manage the material resources due to inadequate knowledge and skills in material resources management. This in turn also brought negative impact on the smooth

implementation of teaching-learning process of the school and the attainments of its objectives.

2. Materials planning and controlling were dominant and frequently performed by school leaders. However need assessment was poorly exercised activity among the variables. This could be as a result of lack of adequate knowledge and skill in planning. Hence it can be said that materials planning is haphazard and in that it is prepared without gaining pertinent information and participation of teachers and administrative workers of the school, and analyzing data regarding the present status of the already existing materials and equipments.

In addition to this, the problems related with materials and equipment is not only confined to planning but also extends to all activities of material resources management such as purchasing, allocation, distribution and disposing of scrap and unused material resources. This is because of lack of qualified personnel assigned to manage the school material resources, low coordination and tow-way communication among school leaders, teachers and workers, lack of training and development opportunities create by school leaders, etc. These are some of the obstacles that hinder the effectiveness of teachers and administrative staff members to implement material resources management activities of the school system successfully .Consequently, it is reasonable to conclude that schools might not develop the necessary knowledge and abilities of its members that enable them to discharge their duties and responsibilities effectively and efficiently, for providing quality of learning in the school system.

3. In addition to that, as the findings revealed that, lack of proper guideline for proper utilizaigton of existing educational materials, poor control system of materials, shortage of educational inputs, failure to collect pertinent information regarding the goods to be purchased and improper quality and shortage of stores are some of the obstacles that hinder the proper managing and utilizing of available material resources of the schools. Therefore, it is possible to conclude that scarcity of valuable resources on one hand and improper utilization of material resources on the other hand have a great negative impact on the overall educational system activities of the school and the achievement of its desired quality of education results.

3. Recommendation

On the bases of the findings and conclusions with regard to material resources management the following recommendations are forwarded in the hope that they would be important to improve and rectify the short comings.

1. School principals should prepare short-term trainings, workshops, seminars, and sharing of experiences with other schools and organizations about the management of material resources to build the capacity of personnel in relation to material resources management.
2. As the finding indicated, more than the shortage of manpower, the most serious factor that create problems for the activities of the material resources management was lack of knowledge and skills of educational leaders. Hence the woreda education supervisors and the school principals should organize adequate and exhaustive training in the area of material resources management like: need assessment, planning, organizing, purchasing , controlling, inventory of stocks, allocation, distribution, proper handling of warehousing, disposition and proper utilization of available materials so as to raise the potential of the personnel that enable them to executes their duties in the manner that reduce cost and maximize the use of the available educational material resources.
3. The shortage of education inputs is becoming the major hindering factor for good teaching-learning process. Therefore, besides to up lifting the government organizations, the school principals must made efforts and facilitate close integration with students, teachers, parents, nongovernment organizations and the community in order to solve educational problems and to get materials and financial support.
4. School leaders and woreda supervisors should devise efficient and effective controlling system such as to have a programmed material inventory control and supervision in order to monitor and control of the management of material resources and introduce good methods, skills and abilities to the school system so that to improve the teaching-learning process.
5. The region educational office should establish and distribute adequate and clear guide lines, documents, rules and regulations of material resources for school users in order to maximize the understanding of the users and contribute their roles in managing and utilizing of material resources.

6. The school leaders should dispose, obsolete, surpluses and scrape materials in time, to use store-rooms to store more materials without damage and to generate income for different activities of the school.
7. School principles should encourage the participation of school community in the management of resources. Therefore, teachers and students must be motivated to contribute their maximum efforts for the proper management and utilization of school material resources.
8. School principals should prepare material resources plan independently, with the active involvement of teachers, students and the community.

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Appendix A

Addis Ababa University

School of Graduate Studies

College of Education

Department of Educational Planning and Management

A Questionnaire to be filled by Teachers

The purpose of this questionnaire is to collect data for the study entitled "A study of practice and problems of material resource management in government secondary school of the southern zone of Tigray national state". Based on the findings possible solutions will be forwarded to improve the existing problems.

Please be sure that all your response will be kept confidential, and will be used for academic purpose only.

So you are kindly requested to complete all the questions in the questionnaire carefully and honestly before you return them. Because the success of the study depends up on your genuine and clear response to the questions.

General Direction

1. You are not required to write your name.
2. All the questions raised here are equally important to attain the objectives of the study. Failure to complete any of them will adversely affect the over all study.
3. Provide your response by putting "✓" or "×" mark in the space provided for questions.
4. Write your opinion briefly to the open ended questions.
5. Please, read and follow the instruction provided for each part before attempting to answer the questions.

THANK YOU!

General information (Part One)

- Woreda _____
- Name of the school _____
- Age _____
- Sex _____
- Years of service for teachers _____
- In teaching _____ Years
- Other position _____ years
- Please specify your position _____
- Current educational level _____

A. M.A/MSc ☐
B. B.A/B.Sc ☐
C. Diploma ☐
D. Teacher training certificate ☐
E. Others (please specify) _____

PART TWO

SPECIFCE DIRECTION:

Read each item separately and indicate your response by putting"✓" or"×" mark in the space provided for each questions.

❖ **This questionnaire is to be filled by administrative workers of the school only**

I. The following questions are regarding availability and use of documents, guidelines and rules.

1. Are there guidelines to manage the overall material resources in your school?
   a. Yes ☐ b. No ☐ c. I don't know ☐
2. Are there basic documents regarding the management of material resources?
   a. Yes ☐ b. No ☐ c. I don't know ☐
3. Has your school established rules and regulations for proper functioning of material resources?
   a. Yes ☐ b. No ☐ c. I don't know ☐

II. Questions regarding the competence and skill of school leaders.

1. To what extent do school positions of material resources management adequately staffed with necessary personnel?

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

2. To what extent can the school leaders' competence able to manage material resources of the school properly?

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

3. What is the source of your knowledge and skill of material resources management? (please specify) _____

_____

_____

III. Questions regarding the level of involvement of school leaders and teachers in material resources management.

1. As a school member or principal, in what area of managerial activities do you participate? Please, put your answer in rank order according to your level of agreement that is if you agree at the first level write "1", at second level write "2" in the space provided below etc.

_____ A. Need assessment

_____B. Planning

_____ C. Purchasing

_____ D. Allocation

_____ E. Distribution

_____ F. Storage

_____ G. Controlling

IV. Questions regarding material resources planning.

1. Who is the responsible body to prepare yearly plan of material resources in your school?

a. school principal in dependently ☐

b. school board of education ☐

c. school management committee ☐

d. teaching and administrative staff jointly ☐

e. others (please specify) _____

_____

2. What is the level of coordination and communication among concerned bodies during planning?

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

2. To what extent does your planning exercise in your school effective?

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

3. What major problem of material resources planning do you observe in your educational system _____

_____

_____

V. Questions regarding material resources purchasing.

1. In your school system to what extent the existing purchasing rule or regulations of educational materials are workable effectively?

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

4. In your educational system to what extent do the materials purchased satisfy the needs of teaching-learning process?

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

5. If your response to question "2" is "low" or "very low" to what extent the teaching-learning process negatively affected?

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

6. In your school, what major problems do you observe in purchasing resources of your school? (please mention) _____

_____

VI. Questions about material resources allocation and distribution..

1. In your educational system to what extent does the existing allocation procedures exercised?

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

2. In your educational system to what extent does the distribution process effectively exercised?

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

3. If your response to question "2" is "low" or "very low" what major problems do you observed in distribution and delivery of material resources? (please mention)_____

_____

_____

VII. Questions regarding material resources availability and utilization.

1. In your school, to what extent do you think the existing available materials in your school system coincide with the predetermined objectives?

a. Highly coincide ☐ b. Modestly coincide ☐

c. Low coincide ☐ d. Not coincide at all ☐

2. To what extent do you think is the available materials in the school system are effectively used?

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

Items	Respondents				
3. To what extent are the following facilities of the school adequate with necessary material resources and equipments?	Very high	High	Medium	Low	very low
3.1 Library					
3.2 Laboratory					
3.3 Pedagogical center					
3.4 Store room					
3.5 Sport department					

VIII. Questions regarding store-room management.

1. In your school system, to what extent does the material resources in the ware housing properly recorded?

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

2. To what extent does the storing system protects the school materials from obsolete or surplus disposal?

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

3. To what extent does the responsible body of the school has knowledge in disposing educational materials?

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

4. In your school, what are the major problems of ware housing? (Please mention) _____

_____

_____

IX. Questions regarding factors affecting material resources management of the school.

9.1 In your school, which factor or problem can affect the proper utilization of material resources management seriously? According its importance, write "1" for the most important factor and wire "2" for the second level important factor etc in the space provided.

_____ A. Miss use of educational materials

_____B. Delay of time in obtaining educational materials.

_____ C. Inconvenient strong

_____ D. Lack of adequate personnel

_____ E. In adequate inventory

_____ F. Lack of training and development regarding material management

_____ G. Shortage of budget.

9.2 Please mention other problems of proper utilization of material resources management of the school. _____

_____

_____

_____

9.3 Please recommend (possible solutions to the problems) to improve the proper utilizationofmaterialresourcesoftheschool._____

_____

_____

_____

Appendix B

Addis Ababa University

School of Graduate Studies

College of Education

Department of Educational Planning and Management

A Questionnaire to be filled by Administrative Workers

The purpose of this questionnaire is to collect data for the study entitled "A" study of practice and problems of material resource management in government secondary school of the southern zone of Tigray national state". Based on the findings possible solutions will be forwarded to improve the existing problems.

Please be sure that all your response will be kept confidential, and will be used for academic purpose only.

So you are kindly requested to complete all the questions in the questionnaire carefully and honestly before you return them. Because the success of the study depends up on your genuine and clear response to the questions.

General Direction

6. You are not required to write your name.
7. All the questions raised here are equally important to attain the objectives of the study. Failure to complete any of them will adversely affect the over all study.
8. Provide your response by putting "✓" or "×" mark in the space provided for questions.
9. Write your opinion briefly to the open ended questions.
10. Please, read and follow the instruction provided for each part before attempting to answer the questions.

THANK YOU!

General information (Part One)

- Woreda _____
- Name of the school _____
- Age _____
- Sex _____
- Years of service for administrative workers_____
- In teaching _____ Years
- Other position _____ years
- Please specify your position _____
- Current educational level _____

F. M.A/MSc ☐

G. B.A/B.Sc ☐

H. Diploma ☐

I. Teacher training certificate ☐

J. Others (please specify) _____

PART TWO

SPECIFCE DIRECTION:

Read each item separately and indicate your response by putting"✓" or"×" mark in the space provided for each questions.

❖ **This questionnaire is to be filled by administrative workers of the school only**

J. The following questions are regarding availability and use of documents, guidelines and rules.

2. Are there guidelines to manage the overall material resources in your school?

a. Yes ☐ b. No ☐ c. I don't know ☐

2. Are there basic documents regarding the management of material resources?

a. Yes ☐ b. No ☐ c. I don't know ☐

4. Has your school established rules and regulations for proper functioning of material resources?

a. Yes ☐ b. No ☐ c. I don't know ☐

II. Questions regarding the competence and skill of school leaders.

1. To what extent do school positions of material resources management adequately staffed with necessary personnel?

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

2. To what extent can the school leaders' competence able to manage material resources of the school properly?

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

3. What is the source of your knowledge and skill of material resources management? (please specify) _____

_____

_____

III. Questions regarding the level of involvement of school leaders and teachers in material resources management.

7. As a school member or principal, in what area of managerial activities do you participate? Please, put your answer in rank order according to your level of agreement that is if you agree at the first level write "1", at second level write "2" in the space provided below etc.

_____ A. Need assessment

_____B. Planning

_____ C. Purchasing

_____ D. Allocation

_____ E. Distribution

_____ F. Storage

_____ G. Controlling

8. Which of the following proper performance of material resources management activities have you observed in the current status of your school system?

2.1. There is proper handling of available resources.

a, strongly agree ☐ b, Agree ☐ c, Neutral ☐ d ,Disagree ☐ e, strongly disagree ☐

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_____

_____

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_____ A. Need assessment

_____B. Planning

_____ C. Purchasing

_____ D. Allocation

_____ E. Distribution

_____ F. Storage

_____ G. Controlling

8. Which of the following proper performance of material resources management activities have you observed in the current status of your school system?

2.1. There is proper handling of available resources.

a, strongly agree ☐ b, Agree ☐ c, Neutral ☐ d ,Disagree ☐ e, strongly disagree ☐

2.2, there is not interrupting teaching-learning process.

a, strongly agree ☐ b, Agree☐ c ,Neutral ☐ d, Disagree ☐ e, strongly disagree☐

2.3. There is Purchasing at a minimum cost of supplies.

a, strongly agree ☐ b, Agree ☐ c, Neutral ☐ d. Disagree ☐ e, strongly disagree☐

2.4, There is distributing material resources properly.

a, Strongly agree ☐ b, Agree ☐ c, Neutral ☐ d, Disagree ☐ e, Strongly disagree☐

2.5, There is controlling unnecessary storage of inventories.

A, strongly agree ☐ b, Agree☐ c, Neutral ☐ d, Disagree ☐ e, strongly disagree ☐

2.6. There is determining proper decision

a, strongly agree ☐ b, Agree ☐ c ,Neutral ☐ d, Disagree ☐ e, strongly disagree☐

IV. Questions regarding material resources planning.

1. Who is the responsible body to prepare yearly plan of material resources in your school?

a. school principal in dependently ☐
b. school board of education ☐
c. school management committee ☐
d. teaching and administrative staff jointly ☐
e. others (please specify) _____

_____

2. What is the level of coordination and communication among concerned bodies during planning?

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

9. To what extent does your planning exercise in your school effective?

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

10. What major problem of material resources planning do you observe in your educational system _____

_____

_____

V. Questions regarding material resources purchasing.

1. In your school system to what extent the existing purchasing rule or regulations of educational materials are workable effectively?

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

11. In your educational system to what extent do the materials purchased satisfy the needs of teaching-learning process?

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

12. If your response to question "2" is "low" or "very low" to what extent the teaching-learning process negatively affected?

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

13. In your school, what major problems do you observe in purchasing resources of your school? (please mention) _____

_____

_____

VI. Questions about material resources allocation and distribution..

1. In your educational system to what extent does the existing allocation procedures exercised?

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

2. In your educational system to what extent does the distribution process effectively exercised?

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

3. If your response to question "2" is "low" or "very low" what major problems do you observed in distribution and delivery of material resources? (please mention)_____

_____

VII. Questions regarding material resources availability and utilization.

1. In your school, to what extent do you think the existing available materials in your school system coincide with the predetermined objectives?

a. Highly coincide ☐ b. Modestly coincide ☐

c. Low coincide ☐ d. Not coincide at all ☐

2. To what extent do you think is the available materials in the school system are effectively used?

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

Items	Respondents				
4. To what extent are the following facilities of the school adequate with necessary material resources and equipments?	Very high	High	Medium	Low	very low
3.1 Library					
3.2 Laboratory					
3.3 Pedagogical center					
3.4 Store room					
3.5 Sport department					

VIII. Questions regarding store-room management.

1. In your school system, to what extent does the material resources in the ware housing properly recorded?

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

2. To what extent does the storing system protects the school materials from obsolete or surplus disposal?

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

3. To what extent does the responsible body of the school has knowledge in disposing educational materials?

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

4. In your school, what are the major problems of ware housing? (Please mention) _____

_____

_____

_____

IX. Questions regarding factors affecting material resources management of the school.

9.1 In your school, which factor or problem can affect the proper utilization of material resources management seriously? According its importance, write "1" for the most important factor and wire "2" for the second level important factor etc in the space provided.

_____ A. Miss use of educational materials

_____B. Delay of time in obtaining educational materials.

_____ C. Inconvenient strong

_____ D. Lack of adequate personnel

_____ E. In adequate inventory

_____ F. Lack of training and development regarding material management

_____ G. Shortage of budget.

9.2 Please mention other problems of proper utilization of material resources management of the school. _____

_____

_____

_____

9.3 Please recommend (possible solutions to the problems) to improve the proper utilizationofmaterialresourcesoftheschool._____

_____

Appendix C

Addis Ababa University

School of Graduate Studies

College of Education

Department of Educational Planning and Management

Interview Questions for Principals

1. Is there any guideline or document for material resources management of your School? If so, your response is "No" please mention, what problems do you face in applying materials management of the school?
2. What is the source of your knowledge and skill for material resources management of the school?
3. Have you ever received training in the area of material resources management? If so, how adequate to manage material resources of the school?
4. What major problems of material resources planning do you observe in your school system?
5. Are libraries of your school equipped with appropriate educational resources as the standard given?
6. What major problems do you observe in purchasing process of supplies of your school?
7. In your school what are the major problems of ware housing?
8. What measures should be taken to improve these problems?

Appendix D

Addis Ababa University

School of Graduate Studies

College of Education

Department of Educational Planning and Management

Observation Check List

This check list is intended to measure extent of the availability of facilities, instructional materials for facilitating the teaching- learning process of the targeted

Name of the school_____

Name of the department_____

Date of observation_____

Item	Subject for observation	Categories			
		Sufficiently exist	Scarcely exist	Not exist at all	Remarks
1. Facilities	1.1class- room buildings				
	1.2Pedagogical center				
	1.3Laboratory Equipments				
	1.4Furniture				
	1.5Sport department				
2.Instructional materials	2.1 Text books				
	2.2Teachers guide books				
	2.3Teaching Aid Materials				
3.Library services	3.1 Reference materials				
	3.2Newspaper, magazines etc				
	3.3 Internet services				
4.Stock level	4.1Safty for storage services				
	4.2Recored system				

Appendix E

Table of Chi square test result

Table	Item	Df	At=$X^2$0.05	X^2
2	1	2	5.99	0.342
	2	2	5.99	5.03
	3	2	5.99	2.32
3	1	4	9.49	6.77
	2	4	9.49	5.18
4	1	1	3.84	3.036
6	1	4	9.49	14.45
	2	4	9.49	7.58
	3	4	9.49	7.10
7	1	4	9.49	7.14
	2	4	9.49	8.15
	3	4	9.49	8.435
8	1	4	9.49	9.40
	2	4	9.49	9.17
9	1	3	7.81	1.329
	2	4	9.49	2.996
10	1.1	4	9.49	4.092
	1.2	4	9.49	8.940
	1.3	4	9.49	9.231
	1.4	4	9.49	7.640
	1.5	4	9.49	9.140
11	1	4	9.49	8.710
	2	4	9.49	3.26
	3	4	9.49	9.42
12	1	1	3.84	0.43

Appendix F

Table of population, sample size and percent

No	Data sources	Total population (university)	Sample population	Percent
1	Schools	11	8	73
2	Teachers	230	165	71
3	Administrative workers	64	64	100

Declaration

I would like to declare that this thesis is my original work and has not been presented for a degree in any other university, and that all sources of material used for the thesis have been properly acknowledged.

Name: Ketsela Tareke

Signature: _____

Date: 6/6/2012

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

Name: Ato Melaku Yimam

Signature: _____

Date: 06/06/2012