

**ADDIS ABABA UNIVERSITY**  
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**COLLEGE OF EDUCATION AND BEHAVIORAL STUDY**  
**DEPARTMENT OF EDUCATIONAL PLANNING AND MANAGEMENT**

**Management and Utilization of Educational Material Resources in Secondary Schools at  
Dera Woreda North Shoa Zone of Oromia Regional State**

**By**  
**Taye Nigussie**

**Presented in Partial Fulfillment of the Requirements for the Degree of Master Education in  
Educational Leadership**

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**This is to Certify that the Thesis Prepared by Taye Nigssie, entitled: Management and Utilization of Educational Material Resources in Secondary School at Dera Woreda North Shoa Zone of Oromia Regional State and Submitted in Partial Fulfillment of the Requirements for the Degree of Masters of Education (Educational Leadership)**

**Singed by the Examining Committee**

_____	_____
<b>Chairman, Department of Graduate Committee</b>	<b>Signature</b>
_____	_____
<b>Advisor</b>	<b>Signature</b>
_____	_____
<b>Examiner, Internal</b>	<b>Signature</b>
_____	_____
<b>Examiner, External</b>	<b>Signature</b>

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## **ACRONYM AND ABBREVIATIONS**

WEOH: Woreda Education Offices Head

MM: Materials Management

T/L: Teaching and Learning

OFED: - Office of Finance and Economic Development

UNESCO: United Nations Educational Scientific and cultural Organization

MOE: - Ministry of Education

FGD: Focus Group Discussion

MOFED: Ministry of Finance and Economic Development

FDRE: - Federal Democratic Republic of Ethiopia

## **Abstract**

The study was initiated to explore the management and utilization of educational material resources in selected secondary schools of North Shoa Zone Dera Woreda. It attempted to identify. How are educational materials resources managed and utilized to achieve educational objectives in secondary schools? To realize the purpose of the study, descriptive survey research design was selected which helps researcher to have understanding of the problem by studying the current status, nature of the prevailing conditions, practices and trends through relevant and precise information. Mixed research method is particularly important in complementing the limitation of each method by another. Both primary and secondary sources of data were used in the study. Three data collection instruments such as questionnaire, interview and FGD were used for the sampling technique. Whereas, FGD participants (selected teachers and administrative staffs), interview participants (WEOH, principals and administrative staffs) and questionnaire participants (teachers) were selected.

Accordingly, the study was carried out on six secondary schools that were selected using random sampling technique. The study also involved 61 teachers, 7 secondary school principals, 4 WEOH, and 12 administrative staffs; the total of 84 respondents. Data were analyzed and interpreted using both quantitatively and qualitatively. The data collected through questionnaire were analyzed quantitatively: percentages and mean were used; qualitative data collected through interviews and FGDS and open ended questions were analyzed by explanation as well as in narrative form. The finding of the study revealed that, there are noticeable short coming in the management of educational material resources. Among these, in adequate knowledge of principals and school board in resource management, delay in purchasing, lack of gathering pertinent information during purchasing, lack of utilization of available resources exhaustively, delay in distribution of material resources, lack of exchange of information among distribution and allocation bodies, lack of need assessment during planning and inventory control were the major challenges in the management and utilization of educational materials resources.

Accordingly, the conclusion drawn is that the management of educational material resources in secondary schools under consideration was less than expectation.



## CHAPTER ONE

### 1.1 Background of the study

Education as human investment was largely responsible for economic growth and national development. The World Bank (1988:5) stated, “Without education, development will not occur. Only educated people can command the skills necessary for sustainable economic growth and for a better quality of life”.

Economic development would be achieved if the society gets proper education, so to achieve the objectives priority should be given to minimize the scarcity of finances and in efficiency of administration practices. Accordingly, the teaching-learning process can be more successful in an educational institution where material resources are available and well managed and utilized. In contrast, educational institutions with poor materials resources and physical facilities tend to be less successful.

In line with this, institutions were essential to sustain and beneficial economic growth. They created knowledge, skills, and policies and mobilize and manage the resources and deliver the services which stimulate and sustain development. Growth and prosperity are unlikely to be maintained if the institutions, which guide them are dysfunctional (Ronald, 1996:55).

Among the different educational inputs, material resources and physical facilities play a major role in terms of achieving the educational objectives. Therefore a great deal of attention should be given to them to utilize properly and wisely. The role of educational materials in the teaching learning process is believed to be crucial and learning is believed to take place through the primary assistance of educational materials and equipment.

According to the above writer, the function of educational material management includes coordination of planning, purchasing, moving, stating and controlling, materials in an optimum manner so as to provide educational service at a minimum cost

Using various materials is necessary to create good teaching learning atmosphere and help the teacher to conduct his lesson in more meaningful and more comfortable ways. For this reason, no matter how far the objective of any educational program was attractive; its success will greatly depend upon the quality and quantity of resources. As Barnett (1996:5), “All organizations have five different kinds of resources to work with.” These are people, equipment, materials, money and time. Among many other educational inputs material resources play major roles in terms of achieving the intended educational objectives, so that great attention should be given for material resources.

The poor performance of education is linked to inadequate educational materials, facilities and shortage of text books and reference materials, which are among the major factors. Therefore it seems that one of the prime factors that affect the achievement of educational objectives is the scarcity of educational materials in the required quality, quantity, and under utilization of the existing ones. Shortage of educational materials and lack of clear school level policy and direction are the major educational problems in Ethiopia.

Educational materials are considered as the major factors for improving the quality of education. In order to promote the quality, relevance and expansion of education due attention should be given to the supply, distribution and utilization of educational materials, educational technology and facilities.

The school principals, concerned administrative staff, teachers, storekeepers and any other members of the staff in the school should necessarily know what resources are required and how these resources are managed and utilized to serve the students. The material resources management ability competence and commitment of all institutional members and the principal management’s skill in particular have a great role for a better achievement of educational objectives. Regarding this, Mbamba (1992:151) states, that to effectively and efficiently achieve these complex educational tasks, managers have to be equipped with technical skill and

knowledge in planning and use of resources set for the realization of the educational objectives. Gopalakrishnan (1998:4) puts functions of materials management include planning, purchasing, receiving stores, inventory control, scrap and surplus disposal. Effectively and efficiently carried out of these function achieve the intended goal of the school successfully.

Therefore, to carry out its responsibilities and achieve its missions and visions, there should be an assessment of educational material resources management and utilization in Dera woreda secondary schools, identify the problems and put remedial measures.

## **1.2. Statement of the Problem**

The success of any school rests on the optimum utilization of its key resources such as human, material and financial resources. According to Durbin (1989), resources are the only means through which school activities, production, service and satisfactory ends are attainable. For the achievement of school objectives, resources play the crucial roles. Due to this fact, the emphasis on educational resources management and utilization in the educational institution was unquestionable.

Moreover, the quality and access to education is mainly determined by the availability of material resources in the sector. As pointed out in Hallack (1990) when setting up a map of priorities for investment in education and training, policy makers must, at the same time, take in to consideration the need for increasing efficiency in the use of resources.

The attainment of educational objectives through teaching-learning process is more dependent upon how educational institutions are capable of managing and utilizing their material resources efficiently and effectively. Educational materials are scarce and costly resources, the knowledge of how these resources are properly managed and utilized in the educational system is very important.

Quality, relevance and access to education can be attained if educational materials are properly manage and utilize in an educational institution. Gopalakrishnan (1998) pointed out that the materials resources management function include the materials planning, purchasing, receiving, storing, inventory control, unused materials disposal.

The quantitative growth in education is accompanied by not only in an increase in the number of educational personnel and the construction of new building but also resulted in with the need for expansion educational materials resources. Now a day's educational material resources are considered to be major instruments for raising quality and educational effectiveness. They are typical means for promoting modernization and extension of educational system UNESCO (1984:9). The improvements in all aspects of education, however, necessitate incurring a considerable amount of financial resources, which is a great challenge for developing countries. However, according to UNESCO (1984:24) even if countries made a great effort to acquire and utilize educational material resources, they are not always employed to the optimum degree.

The limited studies in our country were also able to reveal underutilization. The material management found out the existence of poor management of educational resources, and also the problems were not only the presence of shortages of supply but also inefficient utilization of what is already secured. This indicates that availability of resources and government's commitment towards education alone doesn't guarantee effectiveness. Hence, exhaustive utilization of the material resources is essential.

Another useful issue to conduct this study was that authorities at various levels (woreda, school) are very much concerned at procurement of additional various types of educational resources without paying attention to it management and utilization. Similarly, Datta (1998:xiii) also states that although it was importance in the organizational performance has been known, for several decades, no serious attempt was made to unify and organize a body of knowledge on materials management; it is seen as a simple and layman's duty.

Furthermore, as it is indicated in the literature materials management is a group activity. As MOE (1997:87) it is by and large a staff function. Hence, all the school personnel (principals, teachers, students, administrative workers) are responsible for the school properties. As opposed to this fact, in most cases, in schools, the necessary care and control is not carried out for the school resources. For instance, some teachers and students do not feel responsible and as such they also misuse and are unconcerned while damaged by some individuals.

As a whole, materials management entails planning, organizing directing and controlling all the activities related to educational resources. To do so, 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, as cited in Demissie 2006:4). Accordingly, depending on the issues stated above the study attempts to address the following basic questions.

### **1.2.1. Research questions**

1. How are educational materials resources managed and utilized to achieve educational objectives in Dera Woreda secondary schools?
2. To what extent is educational material resource management and utilization governed by policies and procedures?
3. How effective is the educational material resources management and utilization at study site secondary school?

### **1.3. General Objective**

The main aim of this study was to look in to the management and manner of utilization of educational material resources in secondary school of North Shoa zone Dera woreda.

### **1.4. Specific Objectives**

The specific objectives of the study were to: -

1. Explore the degree of education material resources managerial activities performed in Dera Woreda secondary schools.
2. Assess the effects that managerial activities brought in teaching learning process.
3. Identify the major effectiveness of material resource and utilization

### **1.5. Significance of the Study**

Educational materials were critical in puts in achieving educational objectives. For secondary school to achieve its objectives there should be proper management and utilization of its educational inputs including educational materials were indispensable in any educational institution.

Therefore, woreda education bureau more or less allocate budget peryear to alleviate the shortage of educational materials. On the other hand, it looks like that there was dissatisfaction of staffs on the availability and supply of educational materials in secondary school. This circumstance entails that either there is something wrong somewhere in needs assessments, materials planning, or on the proper utilization of the existing educational materials which negatively affect the attainment of the secondary schools goals. For this reason, the current study is believed to have the following significance:

- It provides valuable feedbacks regarding the effectiveness of educational material resources management and utilization in secondary school from the respondent's point of view.
- It suggests the importance of proper educational material resources management and utilization among educators and other members of the society who were directly or indirectly related to educational materials management and utilization activities.
- It forwards practical solutions to alleviate the existing problems concerning the issues under study.
- Research might also use the research result as a spring board or farther investigations that would lead to the improvement of educational materials and equipment management and utilization practice in an educational system.

## 1.6. Delimitations

The research presumes the problems were not only to the fore mentioned secondary schools of North Shoa zone Dera woreda it also affects secondary schools of the whole Zone. Whatever, the study is delimited to the investigation of material resources management and utilization in North Shoa zone Dera woreda secondary schools. This zone has 14 woredas, and 45 general secondary schools. To conduct the study on all secondary schools consume time, finance and less manage the research.

## 1.7. Limitation of the Study

Most of the respondents were not voluntary to fill the questionnaire. However, by the help of principals and some teachers and waiting for a bit longer time, the researcher finally collected enough and relevant information. In addition to this, shortage of time because of workload was the other limitation.

## 1.8. Operational Definition of Terms

- **Inventory control:-** the school administration functions of controlling, coordinating and regulating the work of procuring and disbursing materials in accordance with the inventory.
- **Maintenance:-** is the function which has as objective to ensure the fullest availability of production equipment, utilities and related facilities at optional cost and under satisfactory conditions of quality, safety and protection of the environment. Maintenance can also be defined as those activities required keeping a facility in as built condition, so that it continues to have its original productive capacity.
- **Materials:** refers to the whole range of goods and services which are purchased or otherwise procured from sources outside the organization, and are used or processed or distributed in order to provide finished products of other producer, which include energy and specialized services and raw materials .
- **Material resources:** are any items those are designed, modified and prepared to assist teaching and learning operations.

- **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.
- **Utilization of materials:** a great Variety of materials normally enter into the “making” of product. These may be direct materials such as component parts, or indirect materials. Thus, manufacturing costs can be reduced through a more efficient utilization of these materials.

### **1.9. Organization of the Study**

This study consists of five chapters. Chapter one deals with the problem under study; the background of the study, statement of the problem, delimitation of the study, limitation, and definition of terms. The second chapter is concerned with the review of related literature relevant to the problem under investigation. Chapter three focuses on research design and methodology. Chapter four also deals with the presentation, analysis and interpretation of all data gathered. Lastly, chapter five contains the summary of major findings, conclusion and recommend.

## CHAPTER TWO

### 2. Review of Related Literature

This chapter deals with various issues on materials resources management and utilization in general and educational materials management and utilization in particular related to the study's research questions.

#### 2.1. The concept of Materials Management

Individuals might understand materials in various ways. This happens for the organizational divisions and compartmentalization of some of the basic management functions dealing with materials incorporate activity. Magad and Amos (1995) state that the adoption of the materials management concepts largely grew out of problems in the air frame industry during World WarII, production of aircraft required a large number of individuals of venders, and in this case, the objectives of materials management were to solve materials problems from a total view point.

In line with this, Mbamba (1992:155) define materials management in education as “.... Executive 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. Hence, materials management from its definition entails that the wise engagement in activities related to materials beginning from materials needs assessment, purchasing necessary materials and ending with the proper disposal of unused /obsolete, scrap and surplus materials. It means materials management also stressed on optimal utilization of the purchased material resources for effective and efficient attainment of the institutional mission and visions.”

The attempt made in reducing materials cost through effective management improves the profitability and the rate of return on investment (Gopalakrishnan and Sundaresum, 1977).

It was true that the manager's ability to optimally utilize human resources was essential for effective achievement of organizational goals as materials, equipment's, facilities, information, can only be put to best possible combination by human beings (Chandan,1987). Due to this fact, the competence of a manager is highly crucial. This is because; the framed goals and objectives,

these standards of performance and obtained needed support of effective leaders are crucial factors for determining school services. This indicated the need for proper and relevant trainings for resource managers.

In past time, the development of professionals in the area of materials management was not given proper emphasis particularly in Ethiopia. The materials management activities were considered as an ordinary activity and they were devoid of serious attention. However, currently, materials management is recognized as distinct area of organizations management and plays a vital role to achieve the intended goals of the organization (MOFED, 2007).

## **2.2. Objectives of Materials Management**

Materials management brings together the efforts of different departments whose responsibility is directly or indirectly related with materials activities. That is why materials management is frequently said an integrated approach. Zenz (1994: 100) noted that, “materials management system helps to advocate management of different functions: purchasing, receiving, storage, inventory control and other materials management activities. Baily and Farmer (1988) also put the materials management objectives as a means for the minimum prices for materials, for the continuity of supply, consistency of quality, goods supplier relations, development personnel and good records. Datta (1988) classified the objectives of materials management in to two major categories:

### **2.2.1. Primary and Secondary objectives of materials**

The primary objectives include, provisioning, strong and minimization of inventories. These include economic procurement, proper store keeping and physical up keeping, issuance and timely distribution, store accounting, record keeping and store control. Inventory control will keep close watch with an eye on high inventory turnover.

The secondary objectives cover such functions as locating new sources of supply, vendor development, variety reduction, standardization and quality control, value analysis, value engineering and developing the skills of human resources with a view to harmonizing and coordinating all functions and activities for smooth flow of materials, to, through and out of an organization. In line with this, Ahuja (1998:344) states, “The materials management objectives can be viewed as procuring better value, obtaining standards, reducing investments in stock through inventory control and materials flow”.

These objectives of materials management should be supported in every way in maintaining continuity of productive operations by ensuring a uniform flow of materials, and increasing competitiveness of the organizations by efficient control of inventories. In school, as in any other organizations the importance of materials management is indispensable. Hence proper emphasis has to be given for the supply and management of educational materials resources, to achieve the educational goals and objectives.

### **2.3. Classification of Educational Materials**

Educational materials and equipment are essential components of educational resources to effectively conduct teaching and learning activity. They can be defined in several ways depending on the purpose of the writer. For instance, Mbamba (1992:154-155) puts educational materials or facilities as “any object or unit areas of space so designed and organized deliberately to support and use teaching and learning operations.” He goes on explaining that they are designed, modified and prepared to assist teaching and learning operations. Another writer Bezabeh (1990:2) defines materials as; The whole range of goods and service which are purchased or otherwise procured from sources outside the organization, and are used or processed or distributed in order to provide finished products of other products, which include energy and specialized services, raw materials and merchandise for resale.

Hence, it can be said that materials are items acquired from the environment to enable the organization to carry out its function. However, different organizations utilize different types of materials depending in the objective they are established for.

For instance, in industrial organizations, the most commonly used materials are raw materials, finished goods used as an input to the operations process, materials used for maintenance, spares, partly finished works. On the other hand, according to Mbamba (1992:155) some of the materials and facilities commonly used in the education system are:-

- Classrooms, laboratories, workshops, libraries, recreational space which serve to house instructional activities;
- Furniture (desks, tables, chairs, blackboards, etc
- Learning and teaching materials which act as source and/or channel from which a learner draws knowledge and acquires skills. These may include equipment for science, production technology, books, manuals, programmed instructions, educational media like radio, television sets, overhead projectors, other audio-visual aids etc; and
- Raw materials consisting of organic and inorganic materials, such as chemicals any specimen of plants and animals etc.

In addition to materials resources, proper equipment is essential for the orderly and efficient operation of a school and to make education worthwhile. Stoops et.al (1982:163) refers it to nonexpendable items which are more or less permanent, have a long life time, and quality as a capital expenditure. They also categorize equipment into two-fixed and movable. Examples of fixed equipment are built in clock systems, counters, cabinets, and communication systems.

Movable equipment includes such items as large tools, office machines, furniture, television on sets, and projectors. In a similar position, Dejnozka (1983:61) states equipment as “items which are (1) non expendable; (2) generally last for long period of time; (3) retain their original shape and appearance with use; and (4) more likely to be repaired than replaced if damaged. To him examples are desks, type writers, and musical instruments”.

However, a more comprehensive classification is made by Jacobson et al (1973:418). According to them equipment is often classified as two status: permanent or movable permanent equipment refers to articles that are part of the building: electric light fixtures heating and ventilation fixtures, toilet fixtures, blackboards, and any other materials permanently fastened in the building and is moved only upon requisition by the principal, and then only for usually good causes. On the other hand, movable equipment refers to chairs, office furniture, projection instruments, portable radios, books, duplicating machines, and so forth.

They also classified it according to its function: seating, visual aid, cafeteria, home economics, industrial arts, music, and athletics. As it is indicated by different organizations and writers, equipment is generally, a relatively permanent material that can be used beyond a year and can be reused by providing

#### **2.4. Educational Materials Management**

Material resources management in relation to education may be defined as that aspect of managerial functions concerned with planning, purchasing, 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 (Mbamba, 1992). Education system, as any other social systems, is engaged in materials management tasks. Through time, as educational institutions have increased in size they have continued to move in the direction of supplying more materials, the management of these resources have become increasingly more important part of the educational institution's management role. Budgeting for purchasing, storing and filling requisition for supplies requires basic managerial ability on the part of the school principals and concerned supportive staff members (Hanson, 1985).

In management of educational materials and equipment, aspect of their utilization is often neglected. Managers at various levels and even policy makers spotlight on issues like teacher training, financial support, student-teacher ratio, provision of additional educational resources, strengthening pedagogical center, etc for raising quality of education.

The very common and mounted problem of utilization of educational resources is far from concern. But, for poor counties like ours, where shortage of resources is a great challenge, capitalizing on the efficient and exhaustive utilization of the already available resources has no choice. UNESCO (1984:64) puts the following steps to be taken to maximize the utilization of the available resources: training, maintenance and evaluation

Acquisition and supply of material resources were the major factor next to planning. It refers to the determination and definition of types and quality of materials needed for the effective implementation of teaching learning ((Mbamba, 1992:89). Hence, according to the above idea, the determination of what is required as primarily a responsibility of the user departments; from this it follows that actual purchase requisition may originate where the need arises. The materials needed for every department has to be clearly understood and should be decided in quality and quantity.

Deighton (1971:99) regarding the acquisition and supply of material resources stated that, “Technical programmers must have enough resources and facilities that are functionally efficient.” So, by its very nature, technical programmers require more materials resources expenditure such as text books, machines, raw materials, audiovisual devices etc.

In general, acquisition and supply process requires integrated effort of the user, choosing of detailed technical specifications and selecting appropriate materials from a wide range of available materials resources within the required time.

## **2.5. Efficiency and Effectiveness of Resources Management**

Efficiency and effectiveness are the two important resource bound concepts that an educational leader should distinguish the difference between them. As Ducker puts it, efficiency means “doing things right” and effectiveness means “doing the right things” (in Stonner et al, 1995: a).

The two terms are not quantified and as a result used in comparative terms. Efficiency is an “input-output” concept. It is achieving the organizational goal in cost effective manner. Hence scarce resources like human, material, time, financé are used to the optimum possible without waste (Chandan, 1987:5)

Effectiveness, in contrast, involves choosing the right goal. The output of the organization should be in line or in agreement with the overall objective. For example, when considering school system, the graduates of certain institutions are expected to satisfy the needs and interests of the entire community (Levacic, 1989:20). Hence, educational managers have to be efficient as well as effective in their performance in order to receive the recognition and essential assistance from the government and the society.

## **2.6. Training on Resources Management**

Provision of information to the teachers, students, administrators, and community at large is essential to maximize the use of materials and facilities. Procurement to new resources in each year is very difficult if not impossible for poor counties like ours. Hence, to prolong the life span of the resources through maintenance and training of personnel is of paramount importance. It should be noted that materials management is not a single person or department responsibility; rather it is by and large a staff function (Datta, 1998:31). There for all the personnel in the school and parents should actively participate in materials and equipment management. As a result, information should be availed for the concerned bodies.

As UNESCO (1984:66) “the objective of information is to encourage the use of these materials and keep users a breast of new developments, educational utilization and result”. The education and training policy (1994) capitalizes on economic utilization of school properties. For instance, one of the objectives says, “Bring up citizens who can take care of and utilize resource wisely” (P.7). The other worth nothing point is as material management is a collaborative endeavor the policy has this to be effective, “Due attention will be given to popular participation in the production, distribution, utilization, upkeep, care and safety of educational materials, educational technology and facilities” (p.28). On top of this, the directive of MOE (1994:45) demands students to use the books and other instructional materials properly and warns not to tear up and damage the pages.

## **2.7. Materials needs Assessment**

The needs for particular materials in a given department can be created by two factors. These are internal stimuli and external stimuli (Robinson in Kotler, 1996). The drives for materials needs are discussed as follows

2. 7.1. **Internal stimuli**:- the most important internal stimuli that are responsible for creating the need for materials are

- The decision to launch a new product: this calls for the purchase of new materials
- Break down of a machine: this call for either replacement of that machine or for the buying of new parts.
- Poor performance of materials at hand and the need to search for another supplier sensing of an opportunity to obtain better price of quality (p.193).

In this case, the users of the materials required should prepare specifications of the materials either with the help of technicians in the area or the users alone. Specifications are detailed descriptions of the general characteristics of materials to be purchased. Different types of specifications are used to delineate quality requirements (Magad and Amos, 1995). According to Dobler and Burt (1996), materials specifications serve a number of purposes, among them:

- Communicate to buyers in the purchasing department what to buy
- Communicate to prospective suppliers what is required
- Serve as the heart of the resulting purchase order
- Establish the standard against which inspection, tests, and quality checks are made (p.16).

Full information, through means of specification provides to supplier with data to: (1) Improve its order quantity decisions and (2) to improve its allocation decisions. It can make better orders because the supplier's local inventory data are not a perfect alternative for the supply chain's replenishment need (Fisher and Cachon2000). When the materials needs are activated by internal stimuli it is through the materials specification that users communicate the quality of the materials requested to suppliers and purchasers. As to parsons (1982), there are three types of specifications commonly used to measure quality. These are: -

1. **Technical specifications**: quality can sometimes be measured objectively and impartially with instruments, gauges or laboratory tests. The buyer's design engineer, if any determines.
2. **Performance specifications**: when a company buys a bought – out part it is primarily interested in the performance of the product itself. Reliability and life expectancy of the product

are the quality characteristics that are more appropriately specified performance specifications are sometimes combined with technical specification.

**3. Brand names:** Branding or differentiating a product is generally done to develop a recognized reputation and to gain repeat sales, protect the product against substitutes, maintain price stability, and simplify sales promotion (Dobler& Burt 1996).

In Ethiopia for public purchasing brand name cannot be used as a mechanism of materials specification (FDRE, 2005; MOFED, 2005).

**2.7.2 External stimuli:-** The most common external stimuli for the creation of awareness of needs for materials are trade shows or trade exhibitions, calls from sales representatives to offer better products or prices and advertising (Tobinson in Biruk 2008;17)

## **2.8. Material Resource Planning**

Planning is the primary function of management. It is the guiding instrument to select our goals and determine how to achieve them. It also lays a good ground for effective working and controlling systems. In addition, planning is particularly important because of scarcity of resources and uncertainty of environment with a fierce competition for these resources (Malelgn and Getnet in Demissie 2006:17). A number of management thinkers have given their own definition of planning however, the most comprehensive definition is given by Drucker Planning is the continuous process of making present entrepreneurial decisions systematically and with best possible knowledge of their futurity, organizing systematically the efforts need to carry out these decisions and measuring the results of these decision against the expectation through organized, systematic feedback (in Chandan, 1987:58).

Thus, planning requires understanding of the present status of the organization that enables to forecast into the future. Having adequate information about the past and the present facilitates decision making and, of course, the plan can also be relevant and the implementation will be easier. Therefore, planning assists to have a clear direction regarding with to do, how to do, and when to do; and hence enables to utilize the scarce resources effectively. As a result, managers are required to plan before they do something.

Planning in relation to educational material 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 and objectives" (Mbamba, 1992:115). It is obvious that educational institutions discharge their responsibilities under serious shortage of resource. It seems due to this that planning in education spotlights on the efficient use of resources. Thus educational institutions have to plan for their materials resources and utilization for successful achievement of their goals.

Material requirement planning, other than education is exercised for operation improvement through cost control. The reduction of cost is mainly the cost associated with the acquisition and management of materials. Furthermore, other than cost minimizing the holding of inventory is also another aspect considered for organizational effectiveness (Cartwright et al, 1993:151). According to Mbamba (1992:155), planning of educational materials 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 weakness and to forecast future courses of action. As indicated above, resources in education are scarce. So, through

## **2.9. Purchasing Educational Materials Resources**

All organizations are it business or educations require supplies of materials and services from outside sources. As a result, purchasing and procurement are among the major functions that are essential for the existence of the organization. Purchasing implies the act of exchange of goods and service for money, whereas procurement is a generic term with a wider connotation for the total responsibility of acquiring goods and services (Datta 1998:52). Purchasing in relation to educational materials resources refers to the "procurement of materials" (Mbamba, 1992:158).

Hence, it is a function that educational institutions assure the availability of instructional materials and equipment. On the other hand, there is a section or department responsible for discharging such responsibility, i.e, the purchasing department. It monitors the quality, quantity, timing and price of all materials purchased. In addition, the specific responsibility of the purchasing department as Chandan (1987:447) points our is to:

- Place purchase orders and follow it up until delivery;
- Find vendors and negotiate with them;
- Maintain records of all transactions and audit purchase records to check for compliance with negotiated terms;
- Coordinate with other departments like production and engineering on all matters pertaining to acquisition of materials.

Therefore, purchasing department has to satisfy the material needs of other departments depending upon the frame work of organizational policy, procedures and objectives.

The purchasing department is also expected to build cordial relationships with the other departments of the organization. It has to have of course, efficient information system that enables it to receive the necessary reliable, timely and adequate information that enables it to act accordingly. As it is service providing function, those who receive service from purchasing department are production, engineering, stores, inspection and quality control, inventory control, traffic, distribution, sales and accounting (Datta, 1998: 54).

Data also indicates that purchasing is both a science and an art. It is a science because there are certain basic principles of purchasing. The application of these principals, when put into practice, makes the art of purchasing an interesting job. On the schools, the primary function of planning for educational continuity is to avail all the support inputs at maximum efficiency. If educational institutions do not have the proper quantity and quality of educational supplies at the proper time, the teaching and learning process will be jeopardized. Educational process has to be managed in such a way that it yields maximum output effectively and economically (Ray et al. 2001:210 )

Now a day, with the complexity of organizational activities, purchasing plays a role more than mere buying of goods and services. Hence, its function is elevated to involve the management of materials in flow, from the establishment of sources and shipping; through inventory and warehousing, to the ultimate delivery at educational stations (Ray et al, 2001:212). He also adds that it is the purchasing department's duty to avoid duplications, excessive stock and unnecessary rush orders that may disrupt the procurement program and cause unnecessary expenses.

### **2.10. Objectives and Policies of Purchasing**

According to Dobler and Burt (1996:41) the general objectives of purchasing have traditionally expressed on the five rights that management expects the department to achieve.

These are:-

1. **The right quality:** the quality of goods that are going to be purchase has to be available, measurable and understandable. It must be clearly state for ease of understanding. Descriptions like "high quality" and "low quality" might lead to confusion. As such elements like dimension, physical, chemical and other properties, suitability and purpose must all be clearly stated. However, high quality goods does not necessarily mean high standard characteristic, it refers to goods whose characteristics comply with what is ordered and the objective of the organization (Bezabeh, 1990:12).

2. **The right supplier:** one of the most important functions of the purchase department is to select the right supplier.

3. **The right quantity:** it is one of the critical issues that need due attention. It has a special meaning in this context, that is to say, what quantity should be purchased at a time. Since quantity is a mathematical measure, there have been many attempts to determine the optimum quantity which is most economical. Besides this, there are many other considerations which have to be taken into account (Datta, 1998:55).

4. **The right price:** is also one of the major complex factors in purchasing. Right price does not mean lowest price; it must be considered in relation to quantity and quality and other attributes. Right price is also associated with value, status, quality, durability, reliability and many other attributes, particularly in the mind of the ultimate consumer (Sherleker and others, as cited in Demissie 2006:24).

5. **The Right sources:** the sources from which the materials is procured should consider such factors as reliability, quality, delivery performance, reputation and continuity of supplies and all of these must be carefully researched and analyzed (Bezabeh, 1990:10).

## **2.11. Basic Operating Policies**

A policy is a statement that is described in a very general term on intended course of action. Policies are developed to serve as general guidelines in making operating decisions that channel actions towards achievement of the objective, after the fundamental objectives of an activity are established (Ayalew, 1991:102). There are some useful polices that direct purchasing and supply management actions. These are:

### **2.11.1. Purchasing and Provision of Educational Materials**

A significant percentage of the annual expenditure of education systems is being spent for material resources (Worku, 2007). The management of modern supply and equipment management is a complex task. Among these, complex tasks negotiation is a critical aspect of purchasing in materials management activities (Crowder, 1998). The day-to-day activities of the educational process will require the use of various types of materials and equipment. In line w some materials are consumed at a rapid rate while the consumption rate of others might be at a much slower pace. Similarly, Stoop (1981) has dealt with the concept of supplies and equipment. They have categorized supplied into consumable and non-consumable supplies.

Examples of consumable supplies are paper, pencil and paint; whereas non-consumable supplies are small tools, staplers and scissors.

Equipment refers to non-expendable items, which exist for a long period. Equipment is most of the time referred to as a capital expenditure. In most cases, they are categorized as fixed and movable. Therefore, to cover what is consumed during the process and to have additional more supplies and equipment without wastage of resources, one has to deal with the appropriate purchasing and provision of educational materials (Harries, 1985). Purchasing and provision of educational materials is related to determination and definition of types and quality of materials needed for the effective and efficient implementation of curriculum and the establishment of preferable procedures for securing the (UNESCO, 1992).

Most of the time, teachers utilize supplies and equipment. These supplies and equipment need constant attention and study. Purchasing and provision of education materials come next to planning. Plans for components purchasing in final assembly, plans with the objective of minimizing the sum of fixed costs for operating materials, acquisition and operation costs of facilities, and subcontracting costs of components are the problems to be considered in purchase planning (Kim and Lim, 2001). Hence, if there is effective planning and its implementation effective purchasing and provision of educational materials will follow that.

### **2.11.2 Utilization of Educational Materials**

Presently the world is crucially dependent up on improvement in methods and more effective utilization of resources in the straggle for economic growth and higher living standards.

Resources are scarce to employ them in unpromising undertakings, or to permit capacity to be impaired by in efficient methods of operation. The central objective of economic effort, whether looked at generally or in terms of specific activities, is utilization of the available resources in such manner as to maximize output (Panto, 1963). As a result, the shortage of educational materials, the available ones should be used properly.

In line with this Bekuretsion (2005:8) indicted that, “optimum utilization of available scarce resources and prevention of all typed of waste are required by adapting scientific system of management and control of materials. Similarly, Setotaw (2001) pointed out that controlling which involves standards of performance, measuring results of work activities and taking corrective measures on time if deviations are defected in materials management. For these activities, the role of supportive staff and academic staff might be greater in educational institutions; schools have a great duty and responsibility in managing, utilizing and controlling the human, financial, and material resources for better performance.

UNESCO (1984) states that the instructional materials are the critical resources in school and their proper utilization should be given due attention by principals and other non-teaching staff to its management. A provision of available resources and utilization is required to attain its desired goals for any educational organization particularly, this might include human resources, materials and financial resource and time resource. Among these resources materials resources is of one importance factor for the achievement of any institutions. It is a source of strength and helps to reach the goals of the institution (Aggarwal 1995:395). Sundareson (1998:105) defines material resource utilization as the function responsible for the coordination of planning, sourcing, purchasing, moving, storing, inventory and controlling materials in an optimum manner so as to provide a pre-decided service to the customer at a minimum cost.

Good material resource utilization can act as a source of information from which learner may acquire knowledge and skills. In support of this UNESCO (1984:113) wrote as follows: All material resources may be used in centers establishments. Hence, the resources should be used on appropriate occasion. Optimum use of materials resources in such manner as to maximize output (Panto, 1963).with this, Harris (1985) has emphasized on the need for materials purchases and provision, as resources implies that problems of maintenance, training, follow-up, and evaluation have been solved.

According to Brown (1985: 125-126), utilizing material resources has the following purposes:

- Convey a concept or simple succession of a fact.
- Reinforce and supplements what had already been learnt, or presented in a practice way.
- Stimulates interest and activity.

Therefore, the availability of adequate and competent learners determines what the institution looks like on its proper utilization of material resources that could have strong positive impact on the learning system.

If materials resource is utilized properly, then it will guarantee the attainment of planned goal. That is, it tries to show that having large amount of materials resources require effective and successful utilization. Otherwise it will lead to failure of the organization that waste effort and energy without value. Hence, management has to play a vital role in the effective utilization of materials resources.

### **2.12. Maintenance of Educational Material Resources**

Maintenance function is seen as a layman's job and managers usually undermine its importance. It helps in protecting further damage of the resources and lays a good ground for reuse which otherwise, demand or force to buy the newer one that is, of course, costly for the organization. It refers to "the logistical service involved with a school plant, and auxiliary structure, or an item of equipment in a series of systematized functions" (Harris, 1985:209).

Maintenance includes actions which are needed to allow for repairs, servicing and replacement procedures. Ray et al, (2001:238) also stress on the point that maintenance enable the provision of services without stoppage. As such they define it as "the function of the school system associated with upkeep, repair, and replacement that ensures continues usability of the physical plant, equipment, and service facilities." The effective organization and management of the maintenance program is essential to the success of the day-to-day operation of schools. Regarding this Datta carefully observed the situation in industrial settings

In spite of the challenging nature of the maintenance management, the service function of the maintenance as also the service function to maintenance management have not attracted sufficient top management attention. Supply of spare parts and maintenance materials are not considered so much a problem to an elite management and is generally delegated to people at lower levels in the management hierarchy (1998:339).

Obviously, such attitude towards maintenance function from the top management will have adverse effect on the budget and materials allocation. The tasks are not well planned and coordinated.

As a result, high level of inventories, a pile of broken or damaged materials, obsolescence, unforeseen stoppages, etc are frequent reports that the organization receives and they ultimately bring down the efficiency of total performance

Depending on the characteristics and the purpose they are intended to serve, Harris (1985:213) categorized maintenance functions in to three: They are:

Preventive maintenance primarily deals with both equipment and facilities. The primary goal of preventive maintenance is to provide that care which is needed to maintain operation or to preserve the objective for a longer duration without costly repairs or lost person-hours. It also reduces the amount of time that the equipment or material is out of use. MOE of Netherlands (2005:12) (as cited in Demissie 2006:32) puts some of the examples the preventive maintenance tasks as follows.

Sweeping out gutters regularly to prevent blockages and damage to roofs;

- Painting to protect and prolong the life of wood work; and
- Washing down pathways to avoid slipperiness.
- The culture of preventive maintenance for their materials and equipment in order to prevent further damage and cost.

System Maintenance carried out in this category involves detailed planning. Replacement, rebuilding, repairing or servicing will take place at a certain specified time. Maintenance of this type features programmed tasks which are to greatly reduce overall time loss, financial loss, labor inactivity and production downtime.

Crisis Maintenance as the name indicates, such maintenance takes place after the equipment or the material has been damaged

### **2.13. Warehouse and Stores Management**

Organizations have to store their goods and raw materials until they are required for production, sell or consumption. A storage function is necessary because production process have to continue without stoppage. According to Ray et al (2001:228) the warehouse department is responsible for receiving incoming goods, reporting receipt to purchase inventory control, and quality control personnel, and making prompt disposition to the appropriate department (Harris, 1985:189-191). For such a purpose there can be two types of ware housing – centralized or regionalized and decentralized storage procedure

The zonal education department can have centralized or regionalized storage for better efficiency and control over the warehousing of purchased items. It ensures economy in that it reduces manpower needs. However, it creates some difficulties in rendering service to various work centers scattered in different locations (Datta, 1998:247). It allows convenience in accounting for the receiving dates of incoming goods, therefore, facilitating the movement of the oldest stock first during the distribution phase, some of the advantages of centralized warehousing are:-

1. Allowing for better control of received items;
2. Allows for better warehouse management through computerization;
3. Greater efficiency in space management; and
4. Better management to inventory procedures and records (Harris, 1985)

Decentralized Storage Procedures: This type of organization, warehouses is established in order to facilitate distribution of goods depending up on geographic proximity to the users etc. Some of the advantages of decentralized warehousing are:-

1. Convenience of the desired product and immediate distribution to the individuals in need;
2. Reduction of the delivery cost from a centralized or regionalized unit of the originating unit;
3. A more direct thrust from the vendor to the originating unit, therefore, eliminating the centralized storage unit or a middle contributor in the purchasing process; and
4. Direct accounting (from both inventory and financial management views) of received goods by the originating unit administrator.

In both cases, the body in charge of product receiving must have knowledge of the incoming items in order to match goods (and the invoice) with the purchase requisition plus approve the condition to the delivered items. And there should be adequate space for item storage (Harris, 1985:191). In most cases the stores of schools are situated in the school compound and can have the following advantages; minimizes handling and ensures timely dispatch, easy movement of materials, good house keep in, optimum utilization of storage space, judicious use of storage equipment, and proper preservation from rain, light and other such elements (Gopalakrishnan and Sundaresan, 1977:149).

#### **2.14. Obsolete and Surplus Management**

Now – a-days the amount of obsolete and surplus materials is increasing as the schools grow and the teaching and learning processes get complex. Therefore, the management of these materials is paramount importance. According to Gopalakrishnan and Sundaresan (1977:177) obsolete and surplus materials are defined as:

Obsolete items are those materials and equipment which are not damaged and which have economic worth but which are no longer useful for the company's operation owing to many reasons such as changes in product line, processes, materials and so on. Surplus items are those materials and equipment which have no immediate use but have accumulated due to faulty planning, forecasting. However, they have a usage value in future. In schools it is also very common of see surpluses because of faulty planning, for casting or purchasing.

#### **2.15. Distribution**

Distribution of educational materials and equipment involves the movement from the warehouse storage facility to the requesting or originating unit. It also entails accountability for the materials (Harris, 1985:193). Distribution is a crucial activity that has to be given due attention by the educational leaders. It is only through profitable distribution that educational intuitions ensure the availability of the necessary materials and equipment for smooth functioning of school. Unless and otherwise poor management of distribution function might at least lead to poor functioning of the system or at most to sudden stoppage. To this point Melaku (2000:235) points out, an efficient distribution system is “one that is responsive to the user; has the ability to react rapidly in periods of emergency; is resistant to disruption in periods of disorder, and economical to operate.”

On the other hand, educational managers have to be able to predict and control some of the problems that might arise beforehand during distribution. The common obstacles that encounter during distribution are:

- Failure to correspond the quantity of educational material and equipment with number of users,
- Lack of conformity to the standard, and
- Failure to avail the required equipment and facilities at agreed time limits (UNESCO, 1984:58)

## **2.16. Disposition**

In school disposal of obsolete and surplus materials is one of the activities that are not given due attention. The principals and teachers should be well informed about surplus and obsolete properties in the schools. There are some profitable methods for disposing of surpluses and obsolete materials as Dobler and Burt (1996:609): use within the firm, return to the supplier, direct sale to another firm, sale to dealer or broker, sale to employees, donation to educational institutions, and some combination of the proceeding methods.

In educational institutions several alternatives have to be weighed before reaching up on single decision of disposal for instance, educational materials that are surplus in one school might be seriously needed in another school. Hence, in this regard to transfer excess material to another school or institutions that have use for the material is more beneficiate. Another perhaps most cost-effective approach of disposition is donation or selling. However, as Melaku et al (2000:335) states school property is dumped, buried, burned, or otherwise destroyed only as a last resort.

## **2.17. Inventories**

Institutions system must strive for maximum utilization of material resources and prevent breakdowns from the lack of necessary material supply. The systems are required to keep complete and up-to-date records of the supplies. Inventories are kept in order to be certain that regularly used supplies and equipment are always on hand and that there is no over stocking or under stocking (Condolie et al, 1984: 219 -220). Hence, compartments for efficient storage facility are needed. Because, compartments enables managers to know at all times which this need to be replenished and which already are insufficient supply. Now a day, inventory control is expedited through the utilization of a computer.

## **2.18. Administration of Materials Resources**

Efficiency in educational provision is vitally related to adequacy of equipment and materials. Modern educational environments are characterized by good seating equipment, standardized textbooks, reference books, libraries, workshops, well equipped laboratories, instructional media, highly qualified personnel, visual aids, more recently computers etc. in order to procure and equip these resources education receives lion's share of the national budget. Therefore, there should be a system which ensures effective utilization and care for these resources.

Hence the principal has a ways been expected to organize his school so that equipment is cared for with a maximum of effort. Proper morale in the school prevents wanton equipment damage; accidental damage or vandalism by a few must be dealt with individually. Accidental damage of equipment through use in schools is to be expected (Jacobson et al, 1973:420). In principle, the principal is responsible for securing necessarily equipment and supplies; for selection and purchase of equipment and for replace of obsolete equipment with modern ones. Again, since he is the responsible head of the school, he must organize his staff so that adequate care of equipment is exercised. In so doing, the mar of school equipment might prevail as a result of accidental or perverse acts. Getting them replaced is also another responsibility.

For instance, MOE (1994:E.C.:46) on the rights and obligation of students states that vandal students should be made to replace the property they destroy. However, techniques used to reimburse the damaged properties always a rises a controversy. Some people argue that schools should expect damage while providing service and as a result students must not be made to replace. The other say that as resources are scarce vandal students should pay. Consequently, schools seem to follow the second extreme and have been getting students replacing the broken properties.

However, in the reality where vandalism of school property has grown at an alarming rate, to ignore all sorts of damage will bring about more destruction and irresponsibility. To sort out vandalism from accidental and taking commensurate measure in reimbursement is a logical practice (Burke, 1984:4).

### **2.18.1. Codification**

Schools store a large number of items which need some techniques of identifying them. Gopalokrishnan and Sundareson (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.

#### **2.18.1.1. Systems of Codification**

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

##### **2.18.1.1.1. Alphabetical system**

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

##### **2.18.1.1.2. Numerical system**

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

##### **2.18.1.1.3. Birch System**

In this system, the items are grouped in to suitable preliminary categories, such as assemblies, sub-assemblies, components of the shelf items. It has a comprehensive

##### **2.18.1.1.4. Kodak System**

Kodak system utilizes to digits of numerical code. The logic of major grouping is based on sources of supply. All materials are divided into 100 basic classifications, contributed only by procurement considerations.

## **2.19. Experience in Materials Resources Management in Different Countries**

According to UNESCO (cited in Biruk 2008), research was made on educational materials condition of four countries. One from Africa (Ghana) two from Asia (the state of Madhya Pradesh in India, and the province of Zhejiang in China) and one from Latin America (the state of Puebla in Mexico)

In that study variation in the size of each institution, variation in the quality of school infrastructures variations in the educational means available to teachers and variation in the conditions of comfort offered to pupils for study, were the major points included in the study.

From the study on these four countries, the quality of school infrastructure or the quality of their physical attractiveness varies from country and from one zone to another. Variations were also observed from urban to rural areas. There were schools without buildings, safe drinking water, playground and decent sanitation, not even a blackboard. These infrastructures with no doubt have affected the quality of education.

According to UNESCO (cited in Biruk 2008:51) the study dealt with questions such as

“With what means teachers should have to carry out their jobs?

What equipment they could use in their classes: whether they regularly received updated guides or pedagogical documentation to help them prepare their courses?”

These all factors under which teachers work, had a significant influence on their motivation. In this respect, the distribution of educational means made available to teachers (like blackboards, chairs, desks, storage cupboards, geographical maps, science posters and others) were included in the study. As a result, availability of those educational means improved the quality of education.

Generally, from the study the following points had been concluded. The materials conditions of education had an impact on the work and the motivation of teachers. Educational materials were also an important factor in academic success of learners. The materials conditions vary by country as a function of its development and at the resources that the country can devote to school education. Any other measures aimed at improving the quality of education were assumed simply by a waste as long as these conditions were not fulfilled. However, in each of these countries observed there were extreme varieties of situations

## **2.20. Educational Materials Resources Management in Ethiopia**

Compared to its significance scholars did not report enough researches on management of educational materials in Ethiopia. No researchers have been done on the management and utilization of educational material resources in higher learning institutions in Ethiopia here before. However, there are some works on TVET schools financial and materials resources management (Haileselassie, 1995) and on the availability and use of instructional materials in primary schools of Tigray region (Amare, 1999). As a result, much cannot be said on the management practices of educational materials resources in Ethiopian secondary school. However, the following features of school materials resources management were reported in Ethiopia (Worku, 2007; Haileselassie, 1995, Tafesse, 2007).

1. Attention is not being paid to existing school facilities and equipment. Most school facilities and equipment are exposed to theft, rain and dust.
2. Most schools lack adequate facilities like library, bookstores, workshops, laboratories, classrooms etc.
3. Most schools did not take regular inventories. They do not give report regarding the condition of their materials status.
4. Schools lack comprehensive directive and finance for maintenance and renewal.
5. Most schools do not have appropriate personnel dealing with the management of materials resources.
6. Learning materials that enhance students' achievement, such as text books, are not properly handled.

Abraham (2001) on his part reported that the training status of teachers, teacher's attitude and commitment, financial and materials support called foster or hinder the effective preparation and utilization of educational materials at school level.

The above research has been done with different regions of Ethiopia. More over them indicted that there were problems in the management and utilization of educational materials resources in the country. As a result, the teaching learning processes were affected by this activity.

## CHAPTER THREE

### **3 The Research Design and Methodology**

#### **3.1. Research Design**

The main purpose of this study was to assess the educational materials and equipment management and utilization in North shoa Dera woreda secondary schools .Among the various research methods, the descriptive survey method was employed. The method was selected because enabled the researcher to investigate the current situation and to identify some of the major problems in the management and utilization of educational material resources. As, Cresswell (2003) asserts, descriptive survey design is appropriate for collecting information from a relatively large number of respondents. Similarly, McNeill and Chapman (2005) add that, descriptive survey is a method of obtaining large amounts of data usually in a statistical form, from a large number of people in a relatively short time.

The researcher used both quantitative and qualitative research methods were employed. Spratt, Walker and Robinson (2004) suggests, combining quantitative and qualitative methods or using multiple approaches can capitalize on the strengths of each approach and under offset their different weakness. This means that this approach was important in complementing the limitations of each method by another; hence the researcher employed mixed research method.

#### **3.2. Selection of study**

North shoa Zone Dera Woreda secondary school was chosen as the research site because the researcher has better access to different information and better knowledge of the site that helps him to get rich and deep data to understand the issue under study well.

#### **3.3. Sources of Data**

The primary sources of data for the research included the woreda education offices heads, school principals, teachers and Administrative staffs of the school. These groups were selected because they could provide first hand information because of their positions and responsibilities in the school and experiences in the management and utilization of materials resources.

### **3.3. Sample Size and Sampling Techniques**

In North Shoa Zone there are 14 woredas and 45 secondary schools. In order to manage the study one woreda was selected to be sample of this study. Simple random sampling were employed to select teachers to fill the questionnaires as they have equal chance for all to be selected in order to avoid sampling bias. Woreda education office head and school principals are chosen by availability sampling because they are few in number. Besides this purposive sampling was utilized to select teachers and administrative staffs for focus group discussion in order to incorporate respondents who directly participated in materials resource management.

A total of 84 respondents participated in the study. Out of these 61 respondents filled the questionnaire, 11 participants were interviewed and focus group discussion was made with 12 participants. More specifically, 61 copies of questionnaires were distributed and 61(100%) copies were filled and returned. Interview was conducted with 5 school principals, 2 woreda education office heads and 4 administrative staff. Focus group discussion was held with 5 selected teachers (focal teacher or who have more experience in the given schools and more relevant to the management of school resources) and 7 administrative staffs.

**Table 1 summary of Total population and sample population**

Number	Schools	Total population					Sample population				
		Teacher	School principals	School administrative staffs	WEOH	Total	Teachers	School principals	School administrative staffs	WEOH	Total
		T	T	T	T		T	T	T	T	T
1	Bitotesa-17	<b>39</b>	<b>3</b>	<b>10</b>	<b>1</b>	53	<b>20</b>	<b>2</b>	<b>6</b>	<b>1</b>	29
2	Salayesh Harebumeskel	18	2	3	1	24	10	1	2	1	14
3	Cheka Gente	21	2	3	1	27	11	1	2	1	15
4	Salelekula	17	2	1	1	21	9	1	1	1	12
5	Tuti	12	2	1	-	15	6	1	1	-	8
6	Racho	10	2	-	-	12	5	1	-	-	6
	Total	117	13	18	4	152	61	7	12	4	84

### **3.4. The Research Instruments**

In order to gather data, both quantitative and qualitative data gathering tools were used because the researcher assumes using both tools would be help to secure, reliable and adequate information. Questionnaire, interview and focus group discussion were used as tools.

#### **3.4.1. Questionnaires**

Questionnaire was used as the data gathering tools to obtain sufficient primary data from teachers on the management and utilization of educational material resources questionnaire was used as data collection tool because it enabled to secure factual information about opinions and views and also appropriate instrument to obtain variety of opinion as within a relatively short period of time (Best and Khan, 2003). Open ended and closed ended questions were prepared. The open ended was prepare in order to realize its appropriateness to obtain data from many people at a time and for its inherent characteristics that it provided an opportunity for informants to express their ideas and opinions confidentially and freely. A total of 61 questionnaires were prepared and distributed and all (61) of them would be filled and returned

The pilot test was carried out in order to avoid error related to language. On the basis of the inputs from the respondents, the researcher made necessary modifications based on the comment questionnaires were rearranged according to the guiding questions. Items that were found to be vague were either discarded or rephrased. For instance, sense of responsibility was discarded and replaced by inventory controls.

#### **3.4.2. Interviews**

To supplement the information gathering through other instruments as well as for clearing of some unforeseen data, interview questions were prepared and face-to-face communication was made with each selected sample which included woreda education heads, secondary school principals and select administrative staffs. Interview was used to collect information verbally in face-to-face situation so as to understand the feelings of the respondents

### **3.4.3. Focus Group Discussion (FGD)**

Group discussion produces data insights that will be less accessible without interaction find in a group setting- listening to others verbalize experiences stimulates memories, ideas and experiences in participants. Focus group discussion is a discussion in which several respondents are interviewed at one time. Additionally, focus group discussion helps to understand issues and reach consensus with participants through discussion. It serves as a means of the validating statements and views. Hence, the researcher was employ this instrument to gather information from select teachers and administrative staff to enable one to get correct and complete information from the target groups.

### **3.5. Procedures of Data Collection**

The procedure in the process of data collection involves four important stages. Initially, review of related literature was made in advance to get information on what has been done in relation to the problems as well as to develop instruments of data collection. Accordingly, through exhaustive exploration of various literatures in the area under study, basic question are formulate and data collection instruments are develop. All instruments were edited and modified with the help of thesis advisor. Before the administration of the questionnaires and conduct FGD, and interview, the researcher contacted the six school principals of the woreda to get their approval and cooperation. Having their will and approval, before final questionnaires are ready and deliver to the respondents, pilot test was conducted.

In the second stage, the field work was conducted which last for about a month and two weeks, for administered the instruments and collected. Before approaching respondents for data collection, the researcher read the written consent form to respondents and informed them about the whole nature of the investigation, so a total of 61 questionnaires were prepared and distributed and all (61) of them would be filled and returned by the help of vice Principals and every data would collected . Similarly, the qualitative data collection procedures were also conducted by the researcher himself exclusively, interviews and focus group discussions with potential informants. Each interview session lasted from 10 minute to 20minute for each

respondent. For interviews conducted with all key informants important notes took on the other hand, each focus discussion was lasted for one hour as also suggested by Sawson (2002) as an ideal length for focus group discussions. All focus group discussions were conducted in the vice principals bureau, and key points were jotted in the note book. The aforementioned groups of respondents are clearly informed about the objective of the study and the issue of confidentiality for the information they offered.

In the third stage, once the desired data was collected through questionnaire, interview and focus group discussion, the research perceived to processing, and analysis of data obtained through these instruments. Data gathered through focus group discussion and interviews were analyzed qualitatively, whereas data obtaining through questionnaire were analyzed quantitatively. The data is present using descriptive narrative method qualitatively and quantitatively. The last phase was interpreted the results and found of the study and production of the research report.

### **3.6. Methods of Data Analysis**

As far as data analysis was concerned, both qualitative and quantitative approaches were employed. The data collected through close-ended questions from teachers were presented in tables and analyzed using percentage mean was employed to determining the finding of the study while qualitative data obtained through interviews and focus group discussions were presented in summarized form and analyzed in narrative form together with the quantitative analysis of related questionnaire items.

## **CHPATER FOUR**

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

This chapter deals with presentation, analysis and interpretation of the data obtained from school teachers, principals, school administrative staffs and woreda education office heads. The first part of this chapter presents the background of the respondents, the second part describes about the management and utilization of educational material resources based on the obtained through questionnaire, interview, and focus group discussion. The data gathered through questionnaire are analyzed using percentage and mean. The data obtained through interview, focus group discussion and open ended question were narrated or quoted.

#### **4.1. Characteristics of the Respondents**

A total of 84 respondents participated in the study. Out of these 61 respondents filled the questionnaire, 11 participants were interviewed and focus group discussion was made with 12 participants. More specifically, 61 copies of questionnaires were distributed and 61(100%) copies were filled and returned. Interview was conducted with 5 school principals, 2 woreda education office heads and 4 administrative staff. Focus group discussion was held with 5 selected teachers (focal teacher or who have more experience in the given schools and more relevant to the management of school resources) and 7 administrative staffs.

Table 2 characteristics of respondents

Items	Variables	Teachers	
		No	%
Sex		No	%
	Male	53	86.9
	Female	8	13.1
	<b>Total</b>	<b>61</b>	<b>100</b>
Age	Below25	8	13.1
	26-35	36	59
	36-45	15	24.6
	46-55	2	3.3
	56-65	-	-
	<b>Total</b>	<b>61</b>	<b>100</b>
Service years	1-5	18	29.5
	6-10	36	59
	11-15	3	4.9
	16-20	2	3.3
	21-25	-	-
	Above 25	2	3.3
	<b>Total</b>	<b>61</b>	<b>100</b>
Qualification	Diploma	4	6.6
	BA/BSC	56	91.8
	BED	1	1.6
	MA/MSA	-	-
	<b>Total</b>	<b>61</b>	<b>100</b>

As shown in table 2 above, out of 61 respondents, 53(86.9%) were males, whereas 8(13.1%) were females. This indicates that in governmental school of the Woreda the participation of female in teaching profession is low.

Regarding age of respondents, all of them were between four age intervals. The intervals were between below 25-55 years of age which accounts for 61(100%) of the total respondents. More specifically, while 8(13.1%) were below 25 age, 36(59%) were between 26-35 age interval, 15(24.6%) were between 36-45 age interval. In addition 2(3.3%) range between 46-55 age intervals. Thus, this implies that under normal circumstances.

With regard to work experience of respondents, the majority of respondents had 36(59%) 6-10 service years. Explicitly, 2(3.3%) had service years of above 25, whereas 18(29.5%) of teachers had 1-5 year service. Such long years of service would assist them to provide relatively reliable and relevant information which would be invaluable to the study.

With respect to educational background of the respondents, 56(91.8%) were BA/BSC and 1(1.6%) were BED. 57(93.4%) were first degree holders while only 4(6.6%) were Diploma holder. As per the guide line of ministry of education, the minimum requirements of qualification to teach in secondary schools were first degree. Hence it can be concluded that almost all sampled secondary schools teachers were qualified to the position they held. On the other hand, on the open – ended questions respondents were asked to provide information regarding the type of training they attended and certificate received.

Accordingly, most teachers (40) were participated in training and received a certificate on the issues like: health and physical education, anti-aids, Red Cross society, English language proficiency training, continuous professional development, etc.

#### 4.2. Analysis and interpretation of data on the management and utilization of educational material resources

This section deals with the presentation, analysis and interpretation of data in view of the basic questions established and concepts and ideas discussed in the review of the related literature.

**Table 3: Practice of need assessment**

No	Items	Rating scale											
		Very High		High		Moderate		Low		Very Low		Total	%
		F	%	F	%	F	%	F	%	F	%		
1	Involvement of users in need assessment	7	11.5	1	1.6	27	44.3	16	26.2	10	16.4	61	100
2	The involvement of users in the preparation of technical specifications	9	14.8	8	13.1	11	18	18	29.5	15	24.6	61	100
3	The support given by the academic staffs to prepare materials specifications	3	4.9	4	6.6	23	37.7	21	34.4	10	16.4	61	100
4	The efforts made by the school principals to get the standard document	4	6.6	11	18	20	32.8	24	39.3	2	3.3	61	100

Table 3 was about the level of users (especially departments) involvement in needs assessment and preparation of specifications of educational materials to be purchased for their schools. As that table 3 of item 1 reveals that 27(44.3%) of the respondents reported the involvement of users in need assessment of educational materials resources to be purchased is moderate while 16 (26.2%), 10(16.4%) of them responded as low and very low.

In addition to the involvement of users in needs assessment, respondents were also requested to give their opinions on the involvement of users in preparation of technical specifications for educational materials to be purchased. Thus, Table 3 of item two show that 11(18%) of the respondents said it is moderate 18(29.5%) of them responded as it is low and 15(24.6%) reported that the involvement of users in the preparation of technical specification for educational materials to be purchased in the school is very low.

Thus, from the responses given, it implies that the involvement of users in needs assessments and preparation of technical specifications were not satisfactorily implemented.

In Table 3 of item 3 the respondents were asked the extent of support given by professional academic staff to those involved in educational materials specification in the form of training. Thus, as seen in table 3, 23(37.7) of the responden responded moderate and 21(34.4%) low, whe 10(16.4%) said very low on the issue.

From the responses obtained, it appears that the support given by professional academic staff to those involved in the preparation of educational materials specifications in the form of training is moderate or not satisfactory in the secondary school of North Shoa Dera Woreda.

In addition, respondents were also asked about the efforts made by the principals to get the standard document containing the types and amounts of educational materials needed for the school. Thus, 24(39.3%) of them reflected as it was low and 20(32.8%) of them said moderate.

As the above data shows, it appears that the efforts made by the school to get the standard document containing the type, qualities and amounts of educational materials needed for the schools is below satisfactory

**Table4 extent of managerial activities perform**

NO	Items	Rating scales											
		Very high		High		Moderate		Low		Very low		Tot al	%
		F	%	F	%	F	%	F	%	F	%		
1	The extent of educational materials planning	13	21,3	12	19.7	18	29..5	16	26.2	2	3.3	61	100
2	The involvement of users in the planning	13	21.3	15	24.6	17	27.9	6	9.8	10	16.4	61	100
3	The match between what is planned and purchasing	10	16.4	13	21.3	11	18	21	34.4	6	9.8	61	100
4	The follow up and controlling mechanism	10	16.4	6	9.8	30	49.2	12	19.7	3	4.9	61	100
5	The extent to which the current planning process satisfy the demands of the school society	8	13.1	6	9.8	20	32.8	16	26.3	11	18	61	100
6	level of coordination and communication during planning	8	13.1	15	24.6	20	32.8	10	16.4	8	13.1	61	100
7	Purchasing	3	4.9	12	19.7	30	49.2	14	23	2		61	100
8	Allocation	10	16.4	14	23	36	59	1	1.6	-	-	61	100
9	Distribution	13	21.3	12	19.7	32	52.4	4	6.6	-	-	61	100
10	Organization	11	18	11	18	34	55.8	5	8.2	-	-	61	100
11	Storage	5	8.2	10	16.4	26	42.6	12	19.7	8	13.1	61	100
12	Controlling	11	18	12	19.7	24	39.3	14	23	-		61	100
13	Utilization	10	16.4	8	13.1	32	52.4	11	18	-		61	100
14	Disposition	6	9.8	4	6.6	10	16.4	40	65.6	1	1.6	61	100

Table 4, item one shows the question posed to respondents on the extent to which educational materials are well planned based on relevant information about educational materials to be purchased taking into account the time they needed, the majority of respondents reported as moderate 18(29.5%) and significant number of them reported as low 16(26.2%). Thus, it is possible to say that the extents to which educational materials are well planned taking into account the time they are needed are more or less unsatisfactory.

Respondents were also asked to give their opinion on the involvement of users in the planning of educational materials resources to be purchased. Item two of the above table revealed that the involvement of users in the planning of educational material to be purchased is considered to be moderate, by the majority 17(27.9%) of the respondents.

The planning process should be made based on relevant information and previous experiences through the system while doing so the planners identify the failure of the previous activities. However it seems that this was not the case in the planning process in the study sit secondary school. Thus, it looks like that there was no satisfactory involvement of users in educational materials planning process.

As depicted in Table 4, item three the majority of respondents 21(34.4%) responded for the match between what is planned and what is purchased is low. Thus, from the response obtained it appears that there was a mismatch between educational materials that are planned and purchased provided on time. A question was posed to respondents to investigate the follow up and controlling mechanism the school use to check that the suppliers are performing as per the specification.

Table 4, item four reveals that 30(49.2%) and 12(19.7%) of the respondents reported as moderate and low respectively.

In line with this, according to the interviewees, with administrative staffs and principals, there was no controlling mechanism set or no committee was assigned to check whether they were buying as the specification. But, the store keeper try to crosscheck and take/receive/ the purchased materials whatever it was whether it matches or mismatch with the specifi cation the school receive it, because the material is needed urgently. Thus, from the data obtained, it was possible to say that the representatives of the sampled and cheeked educational materials resources provided are low.

Item 5 of Table 4 shows that, majority of the respondents reported below average that was 27(44.3%) which was the total sum of who responded low and very low whereas 20(32.8%) responded it moderate on the current planning process of educational resources satisfying the demands of the school society. One of the principal replied during interview as follows:

“Even if schools might prepare satisfactory planning, due to long purchasing procedures followed, educational materials are not provided on the right time”. They suggested that woreda need to buy all materials for all sectors at once and to collect the need and check the plan of each sector it takes long time.

Therefore from the data obtained it seems that the extent to which the current planning process of educational materials in satisfying the demands of the school societies is below satisfactory. Accordingly, 20(32.8%) and 10(16.8%) of the respondents that said it is medium and low, and 15(24.6%), shows that the coordination and communication among the planning bodies is high. Here, what can be understood is inefficient information exchange among schools and woredas which of course retain effective implementation of the plans.

On the other side, responses from focus group discussion of almost all sampled schools suggest the major problems in educational planning as follows:

“Lack of knowledge and skills of educational leaders on planning, Plans are too ambitious, Lack of need assessment during planning,

Failure to identify problem areas and prioritize the problems depending up on the resource available,

Failure to depend on carefully gathered and objective data, The budget allocation bodies give very minimal attention for materials and equipment and as a result deduct much of the budget claimed during planning and

Lack of coordination and two-way communication among the concerned bodies.”

On the other hand, the focus group discussion revealed that though there was a plan, plan prepared were not taken into action. The planned educational materials were provided after the activities for which the materials requested are completed. The purchased made are not in accordance with the plans prepared which demolish to prepare educational materials plan. From the above compiled data, the effectiveness of planning activities in secondary schools was moderate.

Item 7 of Table 4 is about effectiveness of purchasing activities. As that, 30(49.2%), 14(23%) of the respondents responded as satisfactory and poor on the purchasing the managerial activities perform. While, 12(19.7%) reported as highly performed. On the open ended questions, respondents" reported that the attempts made to increase the participation of professionals /users/on educational materials plans and needs assessments made are highly jeopardized by ineffective purchasing."

From the responses given, the effectiveness of educational materials needs assessments and the purchasing activities in the secondary schools are not satisfactory. It is reported that, the purchasing procedures take long period and it entails long bureaucracy.

The opinions of respondents were also obtained on the effectiveness of educational materials storage /handling/. As table 4 shows, the effectiveness of storage /handling/ activities is rated.

The utilization, control and disposition of unused materials are the materials management activities performed after the materials are distributed to users. These activities effectiveness will greatly reduce costs on materials and helps to attain the intended objectives. With this understanding, questions were posed to respondents to gather their opinions on the effectiveness of these activities in secondary schools.

Observation of table 4 item 12 reveal that 24(39.3%) and 14(23%) of the respondents reported the effectiveness of controlling educational material in secondary school is satisfactory and poor respectively.

On the same Table of item 13, 32(52.4%) and 11(18%) of the respondents forwarded that the utilization of educational material resources is satisfactory and poor respectively. Whereas 10(16.4%) said its effectiveness is very high.

According to the interviewees, in most cases students and teachers take chairs out of classroom, they used and leave them out in the field. Most staff members saw, but did not take measure on that most instructors misuse papers and other educational materials a number of chemicals in laboratory were not used for T/L process. Thus from the responses obtained it appears that the educational materials are not effectively utilized to attain their intended objectives.

There are mechanisms to dispose unused educational materials. Their proper disposition might have financial and psychological advantages. With this understanding, questions were posed to find out the effectiveness of unused educational materials disposition in secondary schools of North Shoa Dera Woreda.

Accordingly, the majority of the respondents, 40(65.6%) and 10(16.4) said that disposition of educational material resources in secondary school of Dera Worea was poor and satisfactory.

According to the interviews, the disposition problem was a nation wide problem not of some schools. The higher officials wrote and distributed a letter for bids not to dispose material resources, until the rules were prepared and distributed to school. Thus, each school gets a great problem for in- effectiveness of this activity. One can get many unused educational materials in the store rooms, in laboratory rooms, on the corridors and other places in the school. They were outsides of the storeroom because of the narrowness of the store – room to accommodate all the unused resources.

From the response obtained, it seems that the effectiveness of unused educational materials disposition is poor.

**Table 5: purchasing system of educational material resources**

No	Items	No=61		
		No	Mean	Rank
1	Effectiveness of purchasing syestem	165	2.7	5
2	Quality of purchased goods	171	2.8	3
3	Appropriateness of purchased goods for T/L purpose	146	2.4	8
4	Reasonability of the price	168	2.75	4
5	Transparency of purchasing system	156	2.55	7
6	Qualification of purchasing committee	159	2.61	6
7	Experience of purchasing committee	174	2.85	1
8	Continuous follow up of purchasing process	174	2.85	1
9	Willingness in gathering pertinent information	137	2.25	11
10	Effectiveness in supplier selection	150	2.46	9
11	Time line of purchasing	139	2.28	10

Table 5 presents the purchasing practices and the likelihood problem. Accordingly, the mean rank of respondents response reveals that experience at purchasing committee and continuous follow up of purchasing process both ranked first, quality of purchased goods and reason ability of the price third and fourth respectively. Whereas, effectiveness in supplier selection, time line of purchase and willingness in gathering pertinent information were ranked ninth, tenth and eleventh respectively. As described in chapter two of this paper, purchasing has the intention of facilitating the attainment of predetermined objectives. The interview with principals and the focus group discussion with teachers and administrative staff revealed that, the time line of purchasing is always delay and the willingness of gathering pertinent information from the user is also very less. This is because the interest of some users to give their need is not attractive; they do not give attention to support by giving the resources needed for their daily activities

**Table 6: extent of educational material resources facilitation**

No	Items	Rating scales											
		Very high		High		Moderate		Low		Very low		Total	%
		F	%	F	%	F	%	F	%	F	%		
1	Extent of educational materials school equipped	4	6.6	10	16.4	13	21.3	24	39.3	10	16.4	61	100
2	To what extent do you believe that the resources shortage will be alleviated through effective and efficient utilization of this existing resources	6	9.8	15	24.6	27	44.3	6	9.8	7	11.5	61	100

Availability and adequacy of educational inputs is essential for proper functioning of the teaching and learning process. In this regard, item one of table 6 above shows the availability and adequacy of educational materials. Accordingly 24(39.3%) ranked low, 13(21.3%) ranked it moderate, 10(16.4%) of the respondents ranked high and very low separately.

From the result of these data, it can be concluded that school were not adequately equipped with the necessary educational inputs that enable them to provide quality education.

The second item of table 6 elicits information whether respondents believe in wise use of resources as one means to compensate resource shortages. Hence, 27(44.3%) respondents ranked as moderately 15(24.6%) of them ranked highly and equal number of respondents that is 6(9.8%) ranked very high and low. Therefore, despite the limited awareness existed, there is diversified perception in regards to the value of economic utilization of resources.

**Table7 allocation and distribution of educational material resource**

5. Excellent            4. Very good            3. Good            2. Fair            1. poor

No	Items	Rating Scales											
		5		4		3		2		1		To tal	%
		F	%	F	%	F	%	F	%	F	%		
1	The time lines of distribution	3	4.9	4	6.6	24	39.3	20	32.8	10	16.1	61	100
2	collaborative performance of distribution	2	3.3	11	18	23	37.7	23	37.7	2	3.3	61	100
3	collaborative performance of allocation bodies	8	13.1	8	13.1	25	41	15	24.6	5	8.2	61	100
4	The time lines of allocation	13	21.3	13	21.3	13	21.3	17	27.9	5	8.2	61	100
5	collaborative performance of allocation and distribution	9	14.8	9	14.8	20	32.8	12	19.7	11	18	61	100

Allocation and distribution are important activities of materials and equipment management. In relation to this, Table 7 discusses how well the allocation and distribution tasks were performed in the school. Accordingly, item one and four discuss the time lines of allocation and distribution activities. As such, for both items, the majority of respondents responded well and fair in allocation and distribution respectively. From this one can predict the existence of a problem in availing educational materials and equipment on time

Item two of the above table reflects the collaboration among the distribution bodies. Hence, equal number of respondents 23(37.7%) showed it to be good and fair, again the same number of respondents 2(3.3%) said it to be excellent and poor and the rest 11(18%) responded it to be very good on the collaboration among the distribution bodies. To this point the data from interview with principals and administrative staff revealed that the levels of collaboration among the distribution bodies were not satisfied. But the interview made with woreda education office head show it was more or less satisfactory. This seen to indicate that the low attention given by the concerned bodies for collaborative distribution. Hence, lack of coordination at woreda and school levels will bring about lack of objective data which, in turn, results in appropriate distribution.

Participation of all the concerned bodies was of paramount importance for effective allocation. Based on this for item three majority respondents 25(41%) 15(24.6%) depicted “good” and “fair” respectively while equal number 8(13.1%) responded excellent and very good respectively. From this one can conclude that allocation was not as effective as it should be. Thus, faulty allocation too much of one item and very less of another might be observed.

Item 5 of Table 7 above is about the extent of collaborative performance between the concerned bodies. For this, 20(32.8%) and 12(19.7%) of the respondents said it is “good” and “fair” respectively. Hence, it is possible to say that the integration between the two bodies is not to the levels that enable to utilize the scarce resource wisely. In that lack of time lines and inefficient collaboration were some of the commonly felt problems

**Table 8: maintenance of educational material resources**

No	Items	Rating scales											
		VH		H		M		L		VL		Total	%
		F	%	F	%	F	%	F	%	F	%		
1	The effectiveness of the school in maintaining and utilizing the broken and unused resources	3	4.9	10	16.4	20	32.8	24	39.3	4	6.6	61	100
2	The type of maintenance they usually utilize												
	2.1. preventive maintenance	2	3.3	11	18	21	34.4	23	37.7	4	6.6	61	100
	2.2. crisis maintenance	20	32.8	19	31.1	10	16.4	7	11.5	5	8.2	61	100
	2.3. systemic maintenance	2	3.3	4	6.6	10	16.4	21	34.4	24	39.3	61	100
	2.4. frequency of maintenance	5	8.2	10	16.4	15	24.6	20	32.8	11	18	61	100
3	The ability of the school principal in awareness creation on material utilization	1	1.6	3	4.9	17	27.9	30	49.2	10	16.4	61	100
4	Techniques of principal to reimburse the damaged properties												
	4.1. only vandal students made to pay	1	1.6	6	9.8	23	37.7	21	34.4	10	16.4	61	100
	4.2. accidental damage is not subject to pay	20	32.8	18	29.5	5	8.2	10	16.4	8	13.1	61	100
	4.3. all sorts of damage are made to replace	4	6.6	9	14.6	8	13.1	10	16.4	30	49.2	61	100
	4.4. Damage properties are not totally replaced	15	24.6	24	39.3	4	6.6	8	13.1	10	16.4	61	100

One of the problems that are commonly observed in educational institutions is to recycle what has been utilized. Having this in mind, table five is interpreted as follows.

Item one spotlights on the effectiveness of maintenance practices. As such, 24 (39.3%) of the respondents reported it to be low. Whereas 20(32.8%) responded it to be moderate. During interview some principles said that: The practice of maintaining and reusing the already utilized materials is more or less effective there is schoolguarant budget which is provided by World Bank and facilitated by school committee to maintain and the school used preventive maintenance.

On the other hand the focus group discussion revealed that, even though there were many broken chairs, tables, torn up books, plasmas, television, tape recorder and speaker etc handled and piled waiting for maintenance. The practice of maintaining and reusing the resource is very low. From this we can conclude that the practice of maintaining and reusing the old materials and equipment was not as effective as it should be.

Item two of the same Table depicts the type of maintenance exercised in educational institutions. Accordingly, 23(37.7%) and 21(34.4%) of the respondents reported as the school use of preventive maintenance was low and moderate respectively. Whereas 20(32.8%) of the respondents reported as crisis maintenance is utilized in the school. Moreover, very large numbers, 24(39.4%), 21(34.4%) responded that systemic maintenance utilization is very low and low respectively and 20(32.8%), 15(24.6%) of the respondents agreed that frequency of maintenance was low and moderate respectively.

The above data implies that school usually carries out maintenance after the properties collapse. Therefore, it is reasonable to conclude that the practice of maintenance is not adequate to safeguard school properties from further damaged that enables them to have longer life time. According to item three principals ability to provide awareness regarding utilization and care to be taken for materials resources, 30(49.2%) and 17(27.9%) responded that it is low and moderate respectively. Whereas 10(16.4%) of them responded as it is very low.

Then focus group discussion revealed that the destruction of school properties is not decreasing. Therefore, it is safe to conclude that the awareness raising instruction provided was not adequate to develop a sense of ownership in school societies.

As the last item of table 8 on techniques used by the principal in order to reimburse the damaged properties 21(34.4%) responded that vandal students pay is low 23(37.7%) responded it as moderate. The techniques principal used on accidental damaged not to pay, 20(32.8%) 18(23.7%) ranked it as very high respectively and a few number 10(13.1%) responded it to be very low. On the other hand for the same item of the same table that, all sorts of damage are made to replace 30(49.2%), 10(16.2%) ranked it as very low and low respectively whereas a few number 4(6.6%) ranked it as very high similarly on the replacement of damaged properties 24(39.3%) and 15(24.6%) responded that it does not replaced.

From the above analyses one can understand that the techniques used by the principal in order to reimburse the damaged properties were one sided so that they were not effective to manage the school properties.

**Table 8.1: precautions made towards school properties**

No	Items		F	%	Total	%
1	employing guard	Very high	4	6.6	61	100
		High	12	19.7		
		Medium	22	36.1		
		Low	20	32.9		
		Very low	3	4.9		
2	robbed school property	Always	4	6.6	61	100
		Sometimes	12	19.7		
		Rarely	23	37.7		
		Not at all	22	36.1		
3	attempts made to get the stolen properties back	Very high	10	16.4	61	100
		High	20	32.9		
		medium	18	29.6		
		Low	13	21.3		
		Very low	-	-		
4	stolen properties that has been returned	All	5	8.2	61	100
		Nearly a half	10	16.4		
		Very small	20	32.8		
		Small	11	18		
		Not responded	15	24.6		
5	Effective use of available materials	Highly	6	9.8	61	100
		Moderately	20	32.8		
		Low	24	39.3		
		Very low	11	18		

Table 8.1 presents the attempts made to safeguard the educational materials resources. In this regard, item 1 seeks information whether schools staffed with employed guard or not. To this point, majority of the respondents 30(39.5%) responded guard employment, is medium whereas 15(19.7%) and 23(30.3%) responded high and low respectively interview with principals and focus group discussion revealed that however, each school should have to employee 1-4 guards, depending upon the area of the school compound majority of the schools have 1 employed guards and the rest by contract agreement which most of the time leave the work that means turnover is high on them. Thus, the schools are not well equipped with employed guard and there is a problem of budget settlement for school as needed.

This indicates that school properties might have endangered with theft, destruction and misuse, even if the woredas have serious shortages of finance, the issue has to be given due attention. In item 2 of the same table, majority of the respondents 23(37.7%) revealed that school properties had been robbed or stolen. Whereas, 22(36.1%) said that school properties had not been robbed or stolen. It was common knowledge that schools were more vulnerable to theft than any other government institutions. It could be as stated on item one, lack of employed guards or as a result of poorly fenced compounds or incompetent guards. This also shows that the educational materials resource suffer not only from poor handling and utilization but also as a result of theft

Item 3 asked the extent of efforts made by different bodies in order to get back school properties after they had been stolen. Accordingly, 13(21.3%) and 18(29.5%) rated it to be low and medium respectively. Therefore, the number is minimized so, the above data indicates that the efforts made by the school, the woreda and other judiciary bodies to bring back the stolen properties seem to be minimal. This indicates that lack of concern and follow up might initiate further stealing and puts schools on danger.

Item 4 of Table 8.1 depicts the practice of returning the stolen properties. As such almost the majority of respondents 20(32.9%) said very small and 11(18%) replied small; hence, it is safe to conclude that school properties receive less weightage among the concerned bodies.

In regards to the last item 5 of table 8.1, the majority of respondents 24(39.3%) responded low on the effective usage of available material resources; furthermore, 11(18%) and 20(32.9%) said very low and moderately respectively. As materials and equipment are perhaps always put on use, their utilization and care should be controlled and supervised day-by-day by all the concerned bodies. Thus it could be understood in such manner that resource utilization and care has not been given attention

**Table 8.2: store room management**

No	Items	Rating scales													
		Strongly agree		Agree		Disagree		Partially agree		Disagree		Strongly disagree		Total	%
		F	%	F	%	F	%	F	%	F	%	F	%		
1	Your school has store-room	12	19.8	17	27.9	20	32.9	8	13.1	4	6.6	61	100		
2	The condition of the store– room is well-built and conducive	4	6.6	8	13.1	20	32.9	24	39.3	5	8.2	61	100		
3	The capacity of the store room to accommodate the available school properties is high	3	4.9	10	16.4	18	29.5	25	41	5	8.2	61	100		
4	properties in store-room properly recorded and handled	4	6.6	12	19.8	18	29.5	24	39.3	3	3.3	61	100		
5	Store-room is managed by employed person	12	19.8	18	29.5	24	39.3	5	8.2	2	3.3	61	100		

Table 8.2 is about the availability and management of store room. According to item one, majority of respondents 20(32.9%) and 17(27.9%) responded as partially agree and agree on the availability of store room. And 12(19.8%) strongly agree. On this issue interview response of the principal was as follows:

The schools have partially (more and less) store room, and it was built by wood and tine around it also it is not constructed or built as standard. And some schools are using learning class for store room. Hence, the properties of schools without store room would have been exposed to damage, loss and mismanagement.

Item two of the same Table seeks information regarding the capability of the store room. Accordingly, 24(39.3%), 20(32.9%) of the respondents disagree and partially agree whereas 8(13.1%), agree, on the well-built and conduciveness of the store room. From the above data one can conclude that even though there is store room in the school, it doesn't build with the standard set and therefore not conducive to arrange the materials as needed.

In item 3 Table 8.2 above respondents were asked to replay their ideas whether the capacity of the store room to accommodate the available school properties is high 25(41%), 18(29.5%) responded that they disagree and partially agree whereas, 10(16.4%), responded as agree on the capacity of the store room to accommodate the resources. But interview held with woreda and some principals revealed that store rooms are large enough to accommodate the properties.

Whereas the focus group discussion with administrative staff and selected teachers showed that store room are not large enough to accommodate the properties when large quantities are ordered. Hence, it could be hard to believe that schools have sufficient space for storing their materials and equipment. As a result, majority of respondents 24(39.3%) disagree on materials coding, recording, handling, identifying and classifying. The interview held with administrative staff and principals revealed properties were not totally recorded and codified and they were not well come by the authorities to provide them technical support. The focus group discussion forwarded that only buildings and some chairs were numbered

Therefore, principals did not have the knowledge and experience of properly handling and coding school properties. The 5th item of table 8.2 is a body responsible to run the activities. To this point, 24(39.3%) of respondents and 18(29.5%) of them partially agree and agree respectively. During interview WEOH replied as follow; the store room is managed by the employed person, but since the turnover of the employed person on store-room is very high; store-room is sometimes managed by assigned administrative staff and/or teachers.

However, whether it is for the administrative staff or teachers to engage themselves in such routine and additional activities might complete their attention from their major task of teaching learning process. Hence, it is safe to say that store-room is not managed by full time workers

**Table 8.3.Inventory Control of Educational Material Resource**

No	Items	Rating scales									
		Once a year		Once a semester		When it is needed on		No inventory at all		Total	%
		F	%	F	%	F	%	F	%		
1	inventory taken	4	6.6	3	4.9	24	39.3	30	49.2	61	100
2	How do you rate the following inventory control activities 5. Excellent, 4 Very good 3 Good 2. Fair 1. Poor										
		No	Mean	Rank							
	2.1. inventory control system	112	1.84	1							
	2.2. frequency of inventory	91	1.49	3							
	2.3. reports after inventory	105	1.72	2							
	2.4. updating records	89	1.46	4							

Mean rating: 0.05 – 1.50 = poor, 1.51 – 2.50 = fair, 3.51 – 4.50 = very good,

2.51 – 3.50 = good, 4.51 – 5.50 = excellent

Inventory control is one of the major functions of materials management activities. Based on this assemtation, the respondents were asked to evaluate the inventory control systems exercised in their schools. As Table 8.3 of item one indicates frequency of inventory taken. On this issue, majority of the respondents 30(49.2%) said that there is no inventory at all in their respected schools. Whereas 24(39.3%) reported that inventory is over taken when it is needed only. From the response obtained, it appears that inventories were not taken for educational materials in the schools.

As Table 8.3 indicates, items 2.4 and 2.2 fall in the range of poor by respondents with mean values of 1.46 and 1.49 respectively. Items 2.1 and 2.3 fall in the range of fair by respondents with mean values of 1.84 and 1.72 respectively. From the responses obtained, it appears that the inventory control activities made in the school level are poor

**Table 8.4: effectiveness of disposes of unused educational materials resource**

No	Items	Rating scales											
		Very high		High		Moderate		Low		Very low		Total	%
		F	%	F	%	F	%	F	%	F	%		
1	Number of disposable and surplus materials	15	24.6	20	32.8	14	23	8	13.1	4	6.6	61	100
2	The way these resource come to be idle	No	Mean	rank									
	2.1. faulty purchase	135	2.21	2									
	2.2. lack of quality	130	2.13	3									
	2.3. being obsolete	140	2.29	1									
	2.4. getting old	118	1.93	5									
	2.5. misuse	116	1.9	6									
	2.6. faulty allocation	120	2	4									
3	responsible body to dispose the obsolete or surplus resources	4	6.6	8	13.2	20	32.8	24	39.3	5	8.2	61	100

As it is observed in Table 8.4, of item 1, respondents were required to answer the number of disposal and surplus educational materials resources in their school. As it was indicated on the table, 15(24.6%), 20(32.8%) of the respondents said very high and high respectively. Whereas, 14(23.0%), 8(13.1%) of the respondents responded the number of surplus and disposable material resources are moderate and low respectively.

The interview and focus group discussion also revealed that there were a pile of used books, tables, chairs, plasma, tape recorder, speaker etc crowding the store room. In this regard, it would be reasonable to say that the experience and awareness of disposing unwanted materials of a school among the school personnel was very less.

Item 2 of Table 8.4 is about way of educational materials resources that become to be idle. As that majority of the respondents ranked being obsolete 1<sup>st</sup> and faulty purchases ranked 2<sup>nd</sup>, lack of quality and faulty allocation was ranked 3<sup>rd</sup> and 4<sup>th</sup> respectively; whereas getting old and misuse ranked 5<sup>th</sup> and 6<sup>th</sup> respectively. The ranking done above seems logical specifically to obsolescence. There was frequent change of instructional materials specially text books because of change of technology. For instance, there was change of books from the old one to new colored printed books as national. And which is true for grade 9-10. Faulty purchase also reflects. Educational materials purchase is performed by OFED workers who do not have deep knowledge about educational materials. It would be therefore, concluded that as there were various ways that bring about surpluses to exist, there is a need to promote the idea of waste and surplus disposal.

In the Table8.4; item3 discussion was ability of responsible body to dispose the obsolete or surplus resources. To this end, 24(39.3%) and 20(32.8%) of respondents responded as the ability of the concerned body to dispose surplus and obsolete material resources are low and moderate respectively, whereas 5(8.2%) said very low. From this, one can concluded that obsolete and surplus materials were not disposed, this confirms with the fact cited above as lack of knowledge and experience in disposal of surplus materials and equipment

**Table 9: Causes of Loss and Destruction of Educational Materials Resources**

No	Items	N=61		
		No	Mean	Rank
1	Misuse by teachers	160	2.62	4
2	Student vandalism	190	3.11	1
3	Abuse by school community	158	2.59	5
4	Misuse by principal	171	2.8	2
5	Abuse by administrative workers (typist, guard, store-keeper ....)	165	2.7	3
6	Theft from outside	153	2.51	6

Table 9 investigates causes of destruction of school properties. Among the given factors, respondents ranked students vandalism first, misuse by principals second, misuse by administrative workers third; and misuse by some teachers; abuse by school community; and theft from outside fourth, fifth and sixth respectively.

The above data implies that the causes of loss and destruction of educational materials resources is happened more by student vandalism; whereas theft from outside happened less additionally, as the above data depicted, principals and administrative workers are not in position to take care of the school material resources.

The interview replied by WEOH was as follows: “Teachers are the prime responsible bodies for damage and misuse of school properties; they have lack of control or a feeling of ownership”

On the other hand the focus group discussion over taken summarize as the cause of lose and destruction of school properties is from the problem of managing system that the principals and administrative staffs lack knowledge of follow up of the school properties. And then students damage a number of school material resources such as plasma, chairs, speakers, fuse etc

## CHAPTER FIVE

### 5. Summary, Conclusions and Recommendations

#### 5.1. Introduction

This chapter consists of three subsections. The first subsection deals with the general summary and the major findings of the study. The next part presents conclusions drawn from the findings and the last one presents alternative solutions recommended so as to ease the problems encountered in the management and utilization of educational material resources.

#### 5.2. Summary

The main aim of this study was to look in to the management and utilization of educational material resources in secondary school of North Shoa Zone Dera Woreda. In order to achieve the purpose of this study, basic questions were raised as follows:

1. How are educational materials resources managed and utilized to achieve educational objectives in secondary schools of North Shoa Zone Dera Woreda?
2. To what extent educational material resource management and utilization is facilitated by policies and procedures?
3. How are the needs of educational materials assessed in secondary school North Shoa Dera Woreda?
4. What are the major streneths and weakness related to educational material resources management and utilization in secondary school of North Shoa Zone Dera Woreda?

The research design of this study was descriptive survey method. The study was conducted using questionnaires, interviews and FGDs as data gathering tools. The particepation for this study were teachers, principals, WEOHs and schools administrative staffs. They were chosen using sampling procedures such as a simple random sampling, availability sampling and purposive sampling.

The study was carried out in six secondary schools from one woreda. From the sample schools, 61 teachers were expected to fill in the questionnaires. Out of the total number of questionnaires dispatched (61), all was correctly filled in and returned the questionnaires.

With regard to interview, WEOH, principals and administrative staffs were incorporated and the necessary information was gathered. In FGDs selected teachers and administrative staffs were added for perceptions.

The data obtained from different sources were analyzed using statistical tools such as percentage, mean and rank. Depending on the results of the analysis made, the following major findings were obtained and summarized as follows

1. Among the respondents, most of them were males. Hence the participation of females in materials and equipment management was very less, and males were dominant
2. Age – concerning the age of respondents most of them were between 26-35 years, others were from 36-45 years whereas least number was aged between 46-55 years old. This implies that they were matured enough to analyze the condition of management and utilization of educational materials resources.
3. Concerning their work experience the majorities were served for about 6-10 years and others had served 11-15 years, where as served for 16-20 years old. Most respondents had accumulated experiences in order to share important ideas in the management and utilization of educational material resources.
4. Regarding educational qualification majority of the respondents had BED, BA/BSC/ and very least number of them had Diploma. This implies that the qualification was significantly equal to the standard set by the MOE.
5. As the response from the open-ended question items indicated, most of the teachers' respondents have not received a long term or short-term training on material resources management and utilization.
6. In regards to capability of educational leaders, as the majority responded both school principals and school committee members do not have the skill that enable them to protect the destruction of school properties; they poorly contributed to the effective management and utilization of educational resources

7. Among the material functions to be discharged by school educational leaders, the tasks dominantly performed by representative teachers were material organization and distribution. On the contrary, purchasing, storage and need assessment were inadequately dealt with.

8. The study indicated that the participation of teachers in educational materials resource planning activities is low principals only prepare the plan and send to the woreda education office without the participation of the teaching staff members.

9. Among the possible factors which were thought to have important contribution to loss and destruction of school properties indicated by the respondents that student vandalism and misuse by the principals and administrative staffs ranked as the alternatives. Whereas, the interview from WEOHS and principals revealed that teachers were ranked as the first on misuse and destruction of educational materials resources.

10. When purchasing is considered, the responsibility of purchasing, material control, inventory, proper utilization etc were transferred to finance and economic development office at various levels. As this office is responsible for all financial and material aspects of the whole sectorial offices delay, inappropriateness of the purchased goods, failure to participate the concerned bodies, lack of experience of purchasing committee were some of highly pronounced problems by the service receivers.

11. The minority, if not insignificant, reported that situations like lack of employed guards, theft, inability to exert maximum effort to return back the lost properties and concern were among the factors that contributed to damage and loss of school properties.

12. Material resources were not allocated and distributed on time. Goods take days until they are allocated and distributed for respective schools. This is because the lack of commitment on the side of officials.

13. Majority of respondents indicated that there were partially schools without store-room. Even those presented store-room face the problem of lack of employed workers; improperly built with insufficient space; so that materials were not properly identified, coded and recorded.

### 5.3. Conclusions

From the findings obtained the following conclusions were drawn.

1. Need assessment was poorly exercised activity and materials organization and distribution were dominant activities performed 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 gathering and analyzing data regarding the present status of the already existing materials and equipment.
2. Purchasing and property administration tasks are assigned to be carried out by finance and economic development offices at various levels. Until they collect the materials to be purchased from each sector, it takes long time. This results in delay, low quality, lack of transparency; which hinder the effectiveness of the overall purchasing system. Consequently, it is reasonable to conclude that schools might not get the necessary materials on time, with the required quality and quantity that enable them to discharge their duties and responsibilities effectively and efficiently.
3. Allocation and distribution was also another problem related to educational material resources management and utilization. OFED take days to allocate and distribute. Another delay was also took place on the side of schools on receiving their share on time. Therefore, it can be said that due to lack of adequate knowledge in allocation and distribution, delay, irresponsibility etc occur. And allocation and distribution of educational material resources and utilization was negatively affected which will, in turn, hinder the process of achieving the desired objective.
4. As many other parts of the country, the schools were not adequately equipped with human, material and financial resources. However as the majority indicated, these scarce resources were not utilized to the maximum possible and as a result, there is underutilization. Hence, there is a need for promoting the idea of wise use of the available scarce resources in order to maximize the effective use of the available resources.
5. Lack of timely maintenance practices was problem in the schools. When school resources are broken or damaged, immediate measure is not taken to repair and reuse it. The conventional practice, to repair after it has been collapsed is the most prevalent problem in the schools. Therefore it can be concluded that there were a number of educational materials that were in the store room without giving services.

#### **5.4. Recommendations**

In light of the findings and conclusions of the study, it can be supposed that the following measures may improve the management of material and equipment resources in secondary schools of North Shoa Zone Dera Woreda.

1. The scarcity of resources is the major problem for developing country like Ethiopia. Therefore using what is available in the manner gives the maximum possible output is not defendable. As the finding indicated, more than the shortage of manpower, the most handicapped the resources management was lack of knowledge and skill of educational leaders. Hence the zone and the woreda education office should organize adequate and exhaustive training in the area of material resource management and utilization like; need assessment, planning, organizing, purchasing, controlling, inventory, allocation, distribution, ware housing, disposition and utilization so as to raise the potential of the personnel that enable them to execute their duties in the manner that reduce cost and maximize the use of the available resources.

2. The cost aspect in our educational institutions is given either in significant attention or non-existent. The issue is more disappointing when schools are considered. For instance, there are various clubs and committees like discipline, anti-aids, natural resources conservation, natural science, etc that facilitate the teaching learning process and assist the school leaders in administration. Whereas, as a result of lack of due attention there is no such supplemental body concerned with property aspect. Therefore at school level “property administration and utilization committee” which is accountable to the principal should be formed with specific duties and responsibilities to:

- The principal make inventory ;
- Register all the available resources;
- Report the unused materials and equipment;and
- Identify and report all the materials and equipment that need disposition;etc

This will alleviate the poor management and utilization of school resources and create awareness among the school community regarding the care should be taken for material resources.

3. As revealed in the findings, services essential for effective functioning of the user institutions like purchasing, allocation, material control, distribution, etc are by and large claimed to be efficient. Hence, the finance and economic development office with education sector or should conduct a research on the services it provides and come up with solutions that facilitate the execution of the functions.

4. People do not pay attention for property aspects and as a result become unconcerned, irresponsible and simply pass while they are misused, broken and damaged. They perceive it to be a single manager or a section duty. However, material and equipment management is a staff function. It requires a collaborative effort of all the concerned bodies. Therefore, the woreda and the school should jointly work on the management and utilization of material resources in order to make workers, students, teachers and the communities at large develop a feeling of responsibility and a sense of ownership towards the educational properties.

5. Maintenance function allows the repair; servicing and replacement procedure. It enables to provide service without stoppage and helps to protect further damaged. In that, it gives longer life-time for materials and equipment which ultimately maximize their exhaustive utilization. However, maintenance of all types is not beneficial for effective utilization of school resources. For example, the old practice in schools is to leave the materials and facilities until they are severely broken down. However, such mechanisms are costly and the repaired resources might not provide adequate services. Hence, as school material resources are perhaps always on use, preventive maintenance has to be promoted which protect it further damage and lost.

6. Inventories of educational materials resources do not take in secondary schools. This cause a problem on properly controlling the educational material resources. Therefore, inventories of educational material resources should be taken by the school at least once a year. This could be held by assigning a committee. This helps the school to clearly identify the educational material resources that are properly functioning or that are damaged within a year. In turn, this helps to properly plan new educational materials to be purchased and to strengthen the maintenance section of the school with appropriate number and qualities of personnel

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7. Total years of service at school

- a. 1- 5years      b. 6-10 years      c. 11-15 years      d. 16-20 years  
e. 21-25 years      f. more than 25 years

8. Academic qualification

- a. Diploma      c. BED  
b. B.A/B.SC      d. M.A/M.S.C      e. others please specif\_\_\_\_\_

9. Additional responsibility in the school

- a. Unit leader      c. student discipline committee  
b. Department head      d others/please specify

10. If you have any short-term or long-term training, please list down

\_\_\_\_\_

11. Type of certificate received (if any)

\_\_\_\_\_

**Part Two-** Material Resources Management and Utilization to Achieve Educational Objectives

2.1. The next questions are regarding maintenance of materials and equipment. Show your level of performance by putting a thick (☐) mark on the space provided

No	Items	Very high	High	Moderate	Low	Very low
1	The effectiveness of the school in maintaining and utilizing the broken and unused resources					
2	The type of maintenance they usually utilize:					
	2.1. preventive maintenance					
	2.2. crisis maintenance					
	2.3. systemic maintenance					
	2.4. no maintenance at all					

3	The ability of the school principal to provide awareness raising instruction regarding utilization and care to be taken for material resources					
4	Techniques used by the principal in order to reimburse the damaged properties					
	4.1. Only vandal students made to pay					
	4.2. Accidental damage is not subject to pay					
	4.3 All sorts of damage (want on or accidental) are made to replace					
	4.4. Damaged properties are not total replaced					

2.2. The current practice of need assessment for purchase of educational material resources. Please mark (□) in the box that you think is appropriate for the following items

No	Items	Very high	High	Moderat	Low	Very low
1	The involvement of users in needs assessment of educational materials to be purchased					
2	The involvement of users in the preparation technical specifications for educational materials					
3	The support given by the academic staffs to those involved in preparing materials specifications in the form of training					
4	The efforts made by school principals to get the standard document containing the types and amounts of educational materials needed for the school					

**Part Three: The Extent of Educational Materials Resources Facilitation**

No	Items	Very high	High	Moderate	Low	Very low
1	To what extent do you believe that the resources shortage will be alleviated through effective and efficient utilization of the existing resource					
2	Extent of educational materials resource your school is equipped					

3.1. Availability and adequacy of educational materia

3.2. The questions forwarded below are intended to get information regarding the effectiveness of disposes of unused material and equipment. Kindly rate as: very high, high, moderate, low, and very

No	Items	Very high	High	Moderate	Lo w	Very low
1	Number of disposable and surplus educational materials resources in your school					
2	The way these resources come to be idle					
	2.1. faulty purchase					
	2.2. Faulty allocation					
	2.3.Lack of quality					
	2.4. Being obsolete					
	2.5.Getting old					
	2.6. Miss use					
3	Ability of responsible body to dispose the obsolete or surplus resources					
4	If the obsolete or surplus materials resources are not disposed on time					

3.3 Question below seeks information regarding store room management in your school rate the level of your agreement

No	Items	Strong agree	Agree	Partially agree	Disagree	Strongly disagree
1	Your school has store-room					
2	The condition of the store-room is well-built and conducive					
3	The capacity of the store-room to accommodate the available school properties is high					
4	The properties in store-room are properly recorded and handled identified, classified and coded					
5	Store – room is managed by employed person					

**Part Four:** The Current Practice of Need Assessment of Educational Materials Resources

4.1. The planning of educational material resources, Please mark (□) in the box that you think is appropriate

No	Items	Very high	High	Moderate	Low	Very low
1	The extent to which educational materials are well planned based on relevant information taking in to account the time they are needed					
2	The involvement of users in the planning of educational materials					
3	The match between what is planned and purchased /provided in terms of time					
4	The follow up and controlling mechanism set by the school to check that suppliers are supplying educational materials as per their agreement					
5	The extent to which the current planning process of educational materials satisfying the demands of the school society					
6	Preparation of specifications for educational materials resources to be purchased					
7	The level of coordination and communication among the concerned bodies during educational material resources planning					
8	School committee and supervisors supervise scarcity of the educational material resource					
9	Broken materials and facilities piled waiting for maintenance					
10	Capacity building (workshop) prospered on need assessment of education material resources					

4.2. To what extent do you perform the following managerial activities in your school? Please, show your level of performance by putting a thick (√) mark on the space provided

No	Managerial activities	Very highly	Highly	Satisfactory	Poorly	Not at all
1	Need assessment					
2	Planning					
3	Purchasing					
4	Allocation					
5	Distribution					
6	Organization					
7	Storage					
8	Controlling					

4.2.1 How do you rate the following purchasing points regarding to materials resource management in your school. The numbers indicated 5-excellent 4-very good, 3-good, 2-fair and 1-poor

No	Items	5	4	3	2	1
1	Effectiveness of purchasing system					
2	Quality of purchase materials					
3	Appropriateness of purchased materials for teaching learning proces					
4	Reasonability of the price of the purchased materials					
5	Transparency of purchasing system of the educational materials					
6	Qualification of the purchasing committee					
7	Experience of the purchasing committee					
8	Continuous follow-up of the purchasing process on the side of concerned bodies					
9	Willingness of purchasing committee to gather information from teachers regarding the type and amount of the materials to be purchased					
10	Effectiveness of supplier selection					
11	Time line of purchasing					

4.2.2. What major problems do you observe in purchasing materials and equipment /please specify/\_\_\_\_\_

4.3. The following questions are focused on allocation and distribution of educational materials and equipment. Please, kindly rate the activities related to them. The numbers indicate 5-excellent 4-very good, 3-good 2- fair and 1-poor.

No	Item	5	4	3	2	1
1	The timelines of distribution process					
2	The extent of collaborative performance of distribution bodies					
3	The timelines of the allocation process					
4	The extent of collaborative performance of allocation bodies					
5	The extent of collaborative performance of allocation and distribution bodies					

4.4. What major problems do you observe in allocation and distribution of resources? Please, specify

\_\_\_\_\_

4.4.1. What strategies should be utilized to get rid of the problems

\_\_\_\_\_

#### 4.5. Inventory control of educational material resources

No	tems	Once a year	Once a semester	When its needed only	No inventory at all	
1	how often is inventory taken in your school					
2	How do you rate the following inventory activities for proper handling of educational materials resources in the school	Excellent	V, good	Good	Fair	Poor
	2.1. inventory control system					
	2.2. frequency of inventory conducted					
	2.3. presentation of reports after inventory					
	2.4. process of updating records					

#### **Part five:-** Problems Related to Educational Material Resources Management and Utilization

5.1. Questions below seek information pertaining materials and equipment handling and utilization.

No	Items	Most serious problem	serious problem	Moderately serious problem	Less serious problem	Not serious problem
1	Misuse by teacher					
2	Student vandalism					
3	Abuse by school community					
4	Misuse by principle					
5	Abuse by administrative workers (typist, guard, store keeper,...)					
6	Theft from outside					

5.2. Does your school employ guard

1. Very high            2. High            3. Medium            4. Low    5. Very low

5.3. How often does the property of your school been robbed or stolen?

1. Always    2. Sometimes    3. Rarely            4. Not at all

5.4. What was the amount of the stolen properties that has been returned?

a. all            b. Nearly a half            c. very small            d. small

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

a. highly    b. moderately            c. Low            d. very low

5.6. What are the basic problems that are observed in your school regarding educational materials resources management and utilization?

Please specify \_\_\_\_\_

5.7. What do you suggest to solve the overall problems in the management and utilization of educational materials resources in your school? Please specify \_\_\_\_\_

\_\_\_\_\_

## **Appendix-B**

### **Addis Ababa University School of Graduate Studies**

Interview to be conducted with woreda education office Heads, selected secondary school principals and administrative staff.

#### **Part one-**Material Resources Management and Utilization to Achieved Educational Objectives

1. Have you participated on the workshop regarding educational resource management and utilization?
2. Do schools and woredas plan for the materials and equipment?
3. To what extent does the woreda participate the concerned bodies for information exchange during planning?
4. What problems do you observe in planning?

#### **Part two:-** The Extent of Educational Materials Resources Facilitation

- 2.1. Are schools and woreda's well equipped with human and other resources?
- 2.2. Are there idle resources in the schools and woreda? (are unused, waiting for maintenance etc).
- 2.3. Can you say that we can bridge the resource shortage by using the available resources effectively and efficiently?
- 2.4. Does your organization have store- room for properties?
- 2.5. What is the condition of the ware house?
- 2.6. Does the warehouse have enough space for storing the properties?
- 2.7. Are the materials coded and given identification number?
- 2.8. Are there idle resources (equipment and material) in the store?

#### **Partthree: - The Current Practice of Need Assessment of Educational Materials Resources**

- 3.1. Are the materials and equipment purchase are of the required standard?
- 3.2. How are the purchased resources allocated to the concerned bodies?
- 3.3. How about distributions?

3.4. What are the major problems embodied in resource distribution and allocation? Do woreda's and schools take their share on time as allocation and distribution is done.

3.5. Are there idle resources? If "yes" what are the major reasons for these stocks to be surplus?

3.6. What are the procedures to withdraw items from the store-room?

**Part four: - Problems Related to Educational Material Resources Management and Utilization**

4.1. Are resources in schools effectively used? If there is wastage what is the reason?

4.2. Who is more responsible for the destruction of school resources? (teachers students, principals, community)

4.3. Do the workers and the users concerned with materials feel a sense of responsibility for material and equipment?

4.4. What is the practice of maintenance for the damaged properties in order to bring them back to functioning?

4.5. What additional problems you observed in resources utilization?

4.6. What measures should be taken to mitigate the resource wastage and to maximize efficient and effective utilization of the available resources?

4.7. What are the major problems you encounter as a store keeper?

## Appendix-C

### Addis Ababa University School of Graduate Studies

Focus group discussion to be conducted with selected teachers and administrative staff.

#### 1. Issue of resource

1.1. Are resources in schools effectively used?

1.2. If there is wastage what is the reason?

1.3. Who is more responsible for the destruction of school resources? (Teachers, students, principals, community)

1.4. Do the workers and the users concerned with materials feel a sense of responsibility for material and equipment?

1.5. Have you organized the workshop on resource management?

1.6. To what extent are people concerned with cost of resources?

#### 2. Resource Planning.

2.1. Does your institution plan for the materials and equipment requirement?

2.2. Do schools and woredas plan for the materials and equipment?

2.3. To what extent does the woreda participate the concerned bodies for information exchange during planning?

2.4. What problems do you observe in planning?

#### 3. Availability of resources

3.1. Are schools and woredas well equipped with human and other resources?

3.2. Are there idle resources in the schools and woreda? (are unused, waiting for maintenance etc).

3.3. Can you say that we can bridge the resource shortage by using the available resources effectively and efficiently?

#### 4. Purchasing of resources

4.1. Are the materials and equipment purchases are of the required standard?

4.2. How are the purchased resources allocated to the concerned bodies?

4.3. How about distributions?

4.4. What are the major problems embodied in resource distribution and allocation? Do woredas and schools take their share on time as allocation and distribution is done.

5. What is the practice of maintenance for the damaged properties in order to bring them back to functioning?
6. What additional problems you observed in resources utilization?
7. What measures should be taken to mitigate the resource wastage and to maximize efficient and effective utilization of the available resources?