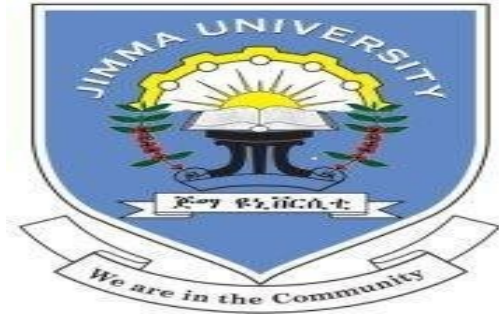


**AN ASSESSMENT OF SCHOOL EDUCATIONAL MATERIAL RESOURCES
MANAGEMENT AND UTILIZATION IN JIMMA ZONE SECONDARY SCHOOLS.**



**COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCES
DEPARTMENT OF EDUCATIONAL PLANNING AND MANAGEMENT**

**BY
DENDENA DINSA**

APRIL , 2022

JIMMA, ETHIOPIA

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**A SENIOR ESSAY SUBMITTED TO COLLEGE OF EDUCATION AND BEHAVIORAL
SCIENCES DEPARTMENT OF EDUCATIONAL PLANNING AND MANAGEMENT
FOR THE PARTIAL FULFILLMENT AND REQUIREMENTS OF MASTERS
DEGREE IN SCHOOL LEADERSHIP.**

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DECLARATION

I, the under signed, declared that this thesis is my original work and has not been presented for a research work in any other university, and that all sources of materials used for this thesis have been duly acknowledged.

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ABBREVIATIONS AND ACRONYMS

EMPDA: Educational Material Production and Distribution Agency

ESDP: Education Sector Development Programme

FDRE: Federal Democratic Republic of Ethiopia

MFEDO: Ministry of Finance and Economic Development Organization

MoE: Ministry of Education

NGO: Non-Government Organization

OFED: Office of Finance and Economic Development

PTA: Parent Teacher Association

REO: Regional Education Office

SPC: School Pedagogical Center

SPSS: Statistical Program Software for Social Science

TVET: Technical and vocational Education Training

UNESCO: United Nations Educational Scientific and Cultural Organization

USA: United States of America

WEOW: Woreda Education Offices Workers

Abstract

The main objective of this study was to assess school material resources management and utilization in Jimma Zone Secondary Schools. In order to meet the objective of the study, descriptive research design was employed, because it helps the researcher to describe the existing conditions and make inference related to this study. Thus, this study was conducted through a mixed research method because such method ignores the weakness of studying the problem through either quantitative or qualitative method alone, and provides more comprehensive and convenient evidence for the study. The procedure of this study was carried out through concurrent triangulation mixed method. The site of the population for this study was limited to Jimma zone woreda secondary schools, Shabe Sombo woreda ,Seka ,Dedo ,woreda , Kersa woreda , and Mancho woreda . As the finding of this study revealed that , the major problems that found challenge for material management system are ; lack of uniformity of educational material resources management, low awareness about material management functions and there integrated relation between each activities. Moreover lack of continuous supervision and controlling system from outside and inside the schools were infective .The researcher recommended that the school communities has to give due attention for the utilization of school material resources , the committee has to assigned based on the experience they have and recruited on their knowledge of purchasing of school education resource.

CHAPTER ONE

1. INTRODUCTION

This section of the proposal includes back ground, statement of the problem, basic research questions, objectives, significance, delimitation, and organization of the study

1.1. Background of the Study

Material resources management and utilization 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, 2002). 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 In management and utilization 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 Sitotaw yimam (2003)

Many countries of our world establish a system for the management and utilization of educational materials because of the role of education in their development. For instance, USA, Sweden and Denmark have a decentralized system of educational materials management in line with their decentralized type of administration in their countries. In these three countries, at national level it is the research activity and some financial supports are provided. Otherwise, the administrative activities like planning, purchasing, handling, distribution and control of utilization are conducted at the local level authorities and schools level (UNESCO, 1984).

In Ethiopia the management of educational materials got attention during the early years of the Ethiopian revolution with the establishment of a department under MoE which was the inception of EMPDA. It was established in July 1984, as an independent agency for educational materials production and distributions.

Besides establishing this system in Ethiopia, emphasis is given to the importance of educational materials for the improvement of educational quality. As underlined by the Ministry of Education, quality improvement in education is unthinkable without an extensive improvement of school facilities and provision of better instructional materials (MoE, 1994)

Resource utilization and management is the main emphasis in school management. The major problems confronting the school administrator is how to utilize the available limited funds, man power, equipment, buildings and materials for effective impact on the student learning. Proper utilization and management of educational materials is defined as the function responsible for the coordination of planning, sourcing, purchasing, moving, storing, inventory and controlling such materials in a proper manager so as to provide pre- determined services to the customer at a minimum cost (Gopalakrishanan, 2005).

According to the observation of a researcher, the management and utilization practice of material resource in secondary schools of Jimma Zone Oromia Regional State need improvement. This encourages the researcher to focus on this topic and to conduct a research on the issue, and to bring improvement on management and utilization of material resource.

1.2. Statement of the problem

Materials management and utilization in education as executive functions concerned with the planning, acquisition, allocation, purchasing, supplying 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

To mention , those studies conducted on this area, a study conducted by(Demissie 2006) on material management found out theexistence of poor management of educational resources, and also the problems were not only thepresence of shortages of supply but also inefficient utilization of what is already secured.

As study conducted by Bekuretsion ,in 2005 studied utilization of material resource ,with reference to Tigray. Inthestyit has been realized that effectiveness and efficiency in material management was one of the major problems of education system of Ethiopia.

As Tafesse, in 2006, studied in Arsi zone on material resource management in preparatory schools. The study has shown that the attention given to material resource management in the system was low. According to his finding the overall planning was not effectively implemented. As Amare(1999),studied availability and use of instructional materials in Tigre and has reported that “instructional materials have always appeared as an annex to books.” He concluded that planners are notconvinceda bout the clear role of in structional material ls. It is argued that even in the ESDP Action plan (1994) document that has devoted only paragraph to the subject of books and materials.

In addition, Worku Berihun (2007) emphasizes that the success of the teaching–learning process is practically dependent up on how schools are capable of managing and utilizing their resources. That is effective and efficient management of school material resources may lead to success whereas improper and poor handling of material resources is liable to lead to failure. Educational institutions with improper and poor handling of material resources tend to be less successful. The poor management of material resources and lack of clear school level policy of material resources management and direction are the major educational problems in Ethiopia. However, according to Amare(1999), proper utilization of existing educational materials are the major factors effects on the expansion of education, lack of proper planning, storing and controlling the educational materials are the most serious problems identified in our education system.

As the initiating and motives behind conducting this study that the complaints heard from school community about purchasing and utilization of material resources and the observation of some materials managed in a poor way as the researcher working as a secondary school supervisor in Jimma Zone Secondary Schools. Due to the above problems, it is difficult to say that the stated strategies and objectives of the education and training policy has fully implemented without the educational material is properly managed and utilized. These are among the major reasons that initiated the researcher to select this research.

This research is different from the above studies by focused on to assess school material resources management and utilization in Jimma Zone Secondary Schools that ultimately concernedwithutilization(suchas,procurement,warehousing,distribution,utilizationandinventorycontrol). In contrast to the previous studies which were more care about resource management, but this study was attempt to fill gaps by only focused on the school material resources management and utilization together. The study therefore will be contributing its part to fill in such knowledge gaps on the issue under investigation. In order to attain the desired objectives, the following research question was rise.

1.3. Research Question

1. To what extent do the secondary schools practice educational materials managements inthe secondary schools of Jimma zone ?
2. How efficient is the practice of material resource utilization in secondary schools of Jimma zone?
3. How adequate are the maintenance activities carried out on the educational materials in the secondary schools of Jimma zone ?
- 4 . What major factors affect educational materials management and utilization in the Jimma zone Secondary schools?

1.4. Objectives of the study

1.4.1. General Objective

The main objective of this study was to assess school material resources management and utilization in Jimma Zone Secondary Schools

1.4.2. Specific Objectives

The specific objectives of this study were able to:-

- To examine the extent do the secondary schools practice educational materials managements in the secondary schools of Jimma zone
- To illustrate how efficient is the practice of material resource utilization in secondary schools of Jimma zone
- To identify how adequate are the maintenance activities carried out on the

educational materials in the secondary schools of Jimma zone

- To identify the major factors affect educational materials management and utilization in the Jimma zone Secondary schools

1.5. Significance of the study

This study is significance to school directors, woreda education offices. The school directors may aware on how to utilize and manage the educational material resources and be effective in utilizing the school resources. The woreda education personnel was use study to know the utilization and management of the school materials educational resource in the schools and their utilization in Secondary schools. Consequently the Woreda education study was able to determine to what extent government funding has enhanced equitable distributions of educational material resources for effective teaching and learning in Jimma zone secondary schools. The findings of this study may help the spring board for those who will conduct their study on the similar title in the future

1.6. Delimitation of the study

This study was delimited to an assessment of school material resources management and utilization in Jimma Zone Secondary Schools. The study was delimited to its conceptual frame work, independent variables (utilization and management of school materials resources) and dependents (learning teaching process, and students' achievement). Therefore, for the purpose of this study ,the researcher was selected five woreda secondary schools ,these are Shabe Sombo woreda ,Seka ,Dedo ,woreda , Kersa woreda , and Mancho woreda .

1.7. Limitation of the study

This study has limited with the consistency of the data collection tools, in which respondents were not willing to give their response .therefore, the data were collected based on quantitative means respondents data collection because those respondents who were engaged on interview were unwilling to give responses .The other limitation was related to coverage of the study , due to manageability of the study, these study only focused only on five secondary schools, which is also reduce the general ability of the finding of the study . In addition to the above factors data limitation and research sample limitation are the other sides to the limitation part of the study.

1.8 Definitions of key terms

Material resources management: as organization and mobilization of all human and material resources in a particular system for the achievement of identified objectives in the system (Adesina ,1990)

Handling of educational materials : the function dealing with the preparation, placing and positioning of materials to facilitate their movement or storage. It covers activities that are performed in warehouse where materials and equipment are picked up and moved. In storing educational materials, planning is important (Datta,1986)

Utilization of educational materials: the function responsible for the coordination of planning, sourcing, purchasing, moving, storing, inventory and controlling such materials in a proper manager so as to provide pre- determined services to the customer at a minimum cost (Gopalakrishanan, 2005).

1.9 Organization of the paper

This thesis is organized in to five chapters. Chapter one consists of introducing background of the study, statement of the problem, objective of the study significance of the study, delimitation, limitation ,operational key words and organizations of the study Chapter two contains review of related literature (theoretical empirical and conceptual frame work) .Chapter three contains methodology that deals about research design sources of data, sampling techniques and sample size, data collection tools, data analysis and ethical consideration. The fourth chapter is presented the result and discussion as well as the last chapter is about summary, conclusion and recommendation.

CHAPTER TWO

Review of Related Literature

This study focuses on “ an assessment of school material resources management and utilization in Jimma Zone Secondary Schools” so; the review of related literature attempted to show the definition and history of educational material management, the objectives of purchasing in concern to store management, the goal and objectives of material management, efficient utilization and distribution of material resources and maintenance of materials according to the basic question and objectives of the research using published and unpublished materials.

2.1 Concept of Educational Materials

According to Ballot (1971:309), materials management is defined as the function of taking responsibility for the coordination of planning, purchasing, moving, storing and controlling materials in an optimum manner so as to providing a pre – decided service to the customer at a minimum cost. Therefore, before defining about educational materials there are some related terms that need to be clear. Hence, the similarities and differences of educational materials, instructional materials, teaching aids and instructional technologies presented.

Educational materials, as mentioned by Mbamba (1992:253), refer to “any object or unit area that designed and organized deliberately to support and used teaching and learning processes”. He further listed educational materials such as laboratories, workshops, libraries and recreational spaces that serve to house instructional activities, furniture, learning and teaching materials which act as source or channel from which learners draw knowledge and acquire skill.

On the other hand, educational materials, as to Prakasha Gurage (1998:122), also encompass all three- dimensional equipment as well as all graphic and written materials used in schools. Some of these materials, as mentioned by the authors, include toys and games, educational aids, basic classroom equipment and furniture, laboratory equipment, playgrounds and textbooks.

Moreover, educational materials are a broad range of materials that are found in schools which support and are used for instructional purposes. Instructional materials, as mentioned by Good (1973:367), refer to „“ devices with instructional content or function that are used for teaching purposes”. On the other hand, Shores (1960:3) define instructional materials as the whole range of media through which teachers and pupils communicate. This includes books audio visual aids, flat pictures, maps, real objects, community resources, etc.

From these, one can understand that the term instructional material refers to various materials that are used for educational purposes and, in this case, both educational materials and instructional materials have some similarities for they are referring to any devices used in the process of teaching and learning. From this point of view, educational materials become an inclusive term that refers to both physical facilities and other instructional materials.

Teaching aids are instructional materials that are used in the instructional processes. They are defined by Good (1973:24) as auxiliary instructional devices that are used to facilitate teaching and learning processes. They are not referring to those core teaching materials that are taken as main ingredients of the teaching learning processes. So, when instructional materials are used to support the teaching learning processes, they are taken as teaching aids. Hence, teaching aids are referring to those instructional materials that are used as supportive materials by teachers in the teaching learning process.

The other term that worth clarifying is instructional technology. Instructional technology, as defined by Good (1973:592), refers to the comprehensive organization of principles, resources, personnel and logistics that combine to produce gains in learning. Wittch and Shuller (1979:6) also define it as the combination of human and non-human resources employed in a systematic way in the design, implementation and evaluation of the total process of teaching and learning.

As can be seen from aforementioned definitions, instructional technology is a broad term that refers to human resources that are involved in instructional design and curriculum and non – human materials in the teaching learning.

2.2 The History of Materials Resource Management

The scarcity of materials which was felt during World War I in USA to a very large extent and it has become difficult for production managers to supply the war goods (Sadiwale, 2007). This has created it necessary to organize the materials management department for managing large inventories in stores and to analyze the problems arising to control and economize inventory cost problems and shortage elimination. The materials management was included as an important function of management.

With the development of principles of scientific management by F.W. Taylor in 20th century, the economic use of materials in all organization was critically felt to reduce the cost of production. The early years of developments in the field of materials purchase and supply systematically begins from 1850. According to (Sadiwale, cited in Charles baggage's book on the economics of machinery and manufacturing published in (1832), refers to knows "Materials Man."

The concept of materials management was widely spread during WW II. Professor Howard T. Lewis of the Harvard Business School made the extensive studies in industrial purchasing practices. Reward had contributed largely to purchasing and materials management in procuring, receiving, inventory control and supply. WW II introduced a new period in purchasing history. The emphasis on obtaining required and scarce materials influenced a growth in purchasing interest (Magad and Amos, 1999).

The post-war period saw the development of the value analysis technique, pioneered by General Electric Company in 1948 on the evaluation of which materials or changes in the specification and design would reduce overall product cost. From 1947 to 1960 were 13 years on further development in materials management. Firms initiated dramatic growth of the materials management during 1960-1970. The Vietnam War resulted in upward price and materials availability pressure. During the 1970, firms experienced widespread material problems related to "oil shortage and embargoes." Widespread agreement between countries taken place with the overall objective to solve materials problems including materials planning, quality control, stores control, materials movement and surplus disposal. The purchasing strategies and behaviors that evaded over in 1980 gave rise to foreign global competition.

The global era of trading in between 1970 and 1999 for materials management increased. Purchasing approaches 2000 reflects a changing emphasis toward the improvement of quality of materials, supplier relationship, more co-operative approach, long term strategies of cost management and data base materials management systems for materials planning and utilization in industries to bring about overall improvement in production system, in cost reduction through economy and increase sales. In order to serve the corporate goals and perform material activities efficiently, a functional organization of the materials management must be established to fulfill the objectives of program The emphasis on obtaining required and scarce materials influenced a growth in purchasing interest (Magad and Amos, 1999).

2.3 Types of Educational Materials Resources

2.3.1 Instructional Materials

These are materials that are specifically meant for direct teaching and learning. It includes classrooms, classroom seats, laboratories, libraries, experimental equipment, chalkboard, audio- visual learning equipment, zoological gardens and experimental agricultural farms. These materials bear directly on the teaching – learning process and are therefore considered of prime priority among other school materials (Lawanson, 2011).

2.3.2 Recreational Materials

These are spaces, lawns, fields, pitches and equipment for sports, games and general recreation. Games and Sports apart from developing specific skills also develop a good learning socio- psychological as well as mental environment through relaxation. The importance and level of resources committed to the development and provision of recreational materials must not exceed their values in facilitating the overall goal of the educational institution (Lawanson, 2011).

2.3.3 Residential Materials

These include hostels and hostel materials, refectory and refectory materials, staff quarters and other associated materials meant to provide residential convenience for staff and students (Lawanson, 2011).

2.3.4 General – Purpose Materials

These are materials that can easily be converted to uses other than those for which they are being used. Such materials in most cases are made of space materials. There are basically two types of

open space materials namely: The developed and the undeveloped spaces. Developed Open Space is used as sporting pitches, fields, lawn, school farms, access roads, parking lots and so on. Their uses can easily be modified as occasion demands. The Undeveloped Open Spaces are all the land area within the legal authority of the institution which is yet to be developed into specific uses (Lawanson, 2011).

2.3.5 Availability of Educational Materials

Our schools can only be what we want them to be if only proper steps are taken in the provision of all that will make teaching and learning effective. Learning cannot take place where materials are not provided. Therefore the provision of materials such as building, equipment etc. is of utmost importance.

Conducive environment is important to note that students and indeed their teachers need to be able to teach and learn adequately and effectively. The school materials therefore, must meet the needs of the school community. Each building in the school should be having ceiled to reduce the intensity of heat. They must also be constructed with a design that makes for cross ventilation. Good sanitary facilities must be provided. Classrooms must not be overcrowded and must be spacious enough for free movement. Jacobson et al in Abraham (2003).

The school farm is another important ground of the school; it is an integral part of the school materials. It is a part of the school compound which many people tend to ignore. Other important materials are standard and well-equipped library and laboratory, games materials, equipment etc. Our school can only be what we want them to be only if proper steps are taken to plan the buildings, the grounds and in fact the general layout of schools.

2.3.6 Effective Management of School Materials Resources

Effective educational materials management is the function, which aims at integrating the management of materials in an organization undertaking. Its main objective is cost reduction and efficient handling of materials at all stages and in all sections of the undertaking (Kumar and Suresh, 1998:52). Effective materials management function also includes several important aspects with materials such as purchasing, storage, inventory control, materials handling and standardization in short period of time with minimum cost.

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

2.3.7 Educational Material Resource Utilization

Acquisition of material resources without some procedures will create ineffective utilization of school resources (Negessie, 2007). Thus, school principals together with his teaching and non- teaching personnel create a guideline to serve as a mechanism for the effective utilization of resources. The determination is accompanied by mechanisms that can be applied for proper usage. For example rules and regulations of handling and managing resources would determine the store house where they are carefully placed and they were by ascertaining the responsibility of the teaching, non-teaching for effective utilization of school resources. All these precautions have taken ahead of time to ensure the effective teaching learning by effective use resources.

The teaching materials such as textbooks, references, maps, globs, laboratory equipment and other materials are requested by the school principals. To request and procure the materials ahead of time determines the awareness and the efficiency of the school principals. In other words, the principal determines its kind and amount.

2.3.8 The Role of Educational Materials in Students Learning

Education contributes to children's perceptual growth and understanding of their environment. To this effect, students learning environment should be designed in a way that can provide them greater opportunity to observe and work with various materials that play an important role in their understanding of man and his environment. In such a case, educational materials are important input components of the schools programs. Lockheed (1991:48) mentions that learning materials are useful components of school inputs to enhance students' achievement. Moreover, studies from developed and developing countries have indicated that the availability of educational materials like textbooks, supplementary reading materials, radio and other instructional media are contributing positively to students achievement and quality of education (Fuller,1986:19).

As mentioned by UNESCO (1984:23), some education systems view educational materials as teaching aids and some others view as a means for innovation. Hence, in the earlier case, educational materials except, for technical and vocational training, are considered as a tool or an aid which support or extend the act of teaching in which its uses depend on teachers will or initiative whereas, in the later case, seen as a means for innovation, are considered as a powerful means of renewing the education system. They can also be seen as indispensable in facilitating the introduction of innovation and promoting changes in the improvement or quality of teaching.

In Ethiopia, issues regarding educational materials are discussed in the education and training policy document (1994:14-15) under the topic of education support. However, as mentioned by Amare (1999:61), educational materials are not taken as key elements for learning rather as teaching aids. In addition the study made on "Teachers perceptions of educational problems in Ethiopia" shows that the absence or shortage of educational materials is one of the major educational problems in the country, Amare (1999:289).

2.3.9 The Functions of Educational Materials Management

The functions of educational materials management is expressed differently by different writers. For example, Gopalakrishnan (2005:175) discussed that educational materials management includes planning, purchasing, allocating, storing and controlling. According to UNESCO (1984:30) educational materials management functions include planning,

distribution and control of the utilization of materials. In both cases, there is no overlooked function but they differ only in the way they treat each of the functions.

2.3.10 Planning for Educational Materials Management

Planning of educational materials is based on need identification of the required educational materials and budget allocated for the purpose. According to Dobler (1971:85), the budget for educational materials can be prepared once the requirements are worked out. Thus, one can see that the purchase budget takes into account the inventory on one hand and orders on the other hand. Besides, the budget itself may be formulated to attain certain targeted inventory levels. It is the usual practice to formulate budgets both in terms of quantity and money.

In identifying the need for educational materials, there are two ways in which the decision as to the need for educational materials can be reached. One of the ways is to base the need on accurate information of the departments, sections or subsystems that request the materials. Requisition is a formal written request from schools, person or departments of the education system to initiate purchase of educational materials. The other way is determining the need from the supply side. This can be done using such available data as the available number of educational materials obtained from an inventory control, utilization standard of educational materials per pupil or per group of pupils and service year of the educational materials in the schools (Dobler, 1971:85).

In which of the two ways discussed above the need for educational materials is decided is a matter of operational procedures or policy decision. In this regard, there should be policy or guideline that explains about the how and when the requisition is filled and submitted to immediate superior and by whom it should be approved (Knezerich & Fowlkes, 1960:64).

Usually, obtaining accurate needs requisition from schools, Woredas or Zones is difficult. This may be due to the reason that schools do not conduct inventory control or the school management may not have the necessary skill in processing the existing data to reach into actual needs. There is also a trend of asking more than required to get at least what they actually want. This is a problem that emanates from their past experience because it is not the requested amount that the schools, Woredas or zones are distributing. Consequently this condition communicates the wrong idea to the requesting body.

As mentioned by UNESCO (1984:34), in the process of planning, in addition to the data for quantitative requirements of educational materials, the presence of qualitative information, standards of educational materials with respect to the education objectives of a country is essential. In this respect, many countries adapted a standard list of materials depending on their prevailing situation, chosen priorities and available options which countries may use as a basis for allocation of educational materials or simply use as a reference. Planning of educational materials should also be based on the budget allocated to the sector. However, this budget is dependent on the total budget allocated to education and the emphasis that educational materials attained in the system. In line with this, Wood hall (1985:189) points out that the minimum expenditure of a country for teaching material is 10% of the total educational budget. However, most developing countries are allocating below this level.

In Ethiopia, as Amare (1999:62) argues, educational materials did not get enough attention in the planning process by both planners and implementers in their action plans due to the problem of conceptualization. As evidence, he mentions the budget allocated by the country in the five years Education Sector Development Program (ESDP) plan. This is 6.8 percent out of the total budget of 12.2 billion birr. Therefore, availability and accessibility of data, priority or emphasis given to educational materials among other issue in education, availability of finance or total allocated budget for education are some of the factors that may affect educational materials planning.

2.11 Purchasing of Education Materials

Mbamba (1992:198) indicated that, the major function of purchasing embraces the flow of materials from the supplies to an organization which has the intention of facilitating the attainment of predetermined objectives. In a narrow sense, the term „purchasing“ simply describes the process of buying; however in a broader sense, the term involves determining the need, selecting the supplier, arriving at a proper price terms and condition, issuing he contract or order, and following up to ensure proper delivery (Alijian, 1973:1).

2.11.1 Purchasing Procedure

Dereje (2006:30) indicated that, the purchasing processes may vary according to the rules and regulations a country follows. Its basic aim is to ensure that what is needed is made available when it is required. The materials to be bought should conform to the established

standards and more of instructions. But the procedure for procurement of educational materials may vary according to the nature of education; the essential steps are as follows:

- ✓ Recognizing the need for the material by using check-up of the available stock.
- ✓ Determining the quality of materials which will be required, regarding to the level of available funds.
- ✓ Deciding on priority basis in relation to the available funds.
- ✓ Drawing detailed specifications of the required items.
- ✓ Preparing and publishing tender documents.
- ✓ Analyzing the tenders to determine the prices, availability of materials etc.

Based on the present proposal on the quality, quantity of items, prices, delivery date, ability of supplier, etc. approving the tenders who should supply the materials.

- ✓ Awarding the contract for the supply of materials.

2.11.2 Time for Purchasing

Timely purchasing is one of the major activities of the purchasing function. According to Gopalakrishnan (2005:174), for determining the right time, the purchaser should have lead time information for all products and analyses its components. Obviously, lead time covers the entire duration of the materials cycle that consists of manufacturing, transporting and inspection.

If educational materials are not provided by the time they are required, it affects the teaching learning situation and quality of education negatively. To make timely purchasing the purchaser should be conscious about the total time that the material requires from the point of need identification to the time they arrive to the users. It is not always the delay that creates a problem to a system. Sometimes early purchasing is also a problem in that it creates a problem of storage places, for instance Right time purchasing is essential and advantageous for smoothing the function of an institution or organization (Harris, 1985:183). For this reason, the purchase requisition time of educational materials should be determined beforehand and be communicated to departments, sections or units of the system.

2.11.3 Determining the Right Price

As mentioned by Candoli (1984), in identifying the optimum price of purchased materials, there are three types of discounts which concern the purchaser. The first is trade discount which is set by vendors on the basis of their classification of customers. Thus, the purchaser's responsibility is making his organization in the most favorable classification of customers. The second is bulk purchasing which offers lower unit prices. Here, the buyer's responsibility is to adjust ordering practice to the most advantageous quantity price break. The third is negotiating which is striving in making agreements that help the organization in saving money like seeing that proper cash discount terms are incorporated in the order, securing invoices promptly from vendors, processing invoices promptly and getting them to the proper paying agent and securing extended discount privileges when unavoidable delays are encountered. These are some of the ways purchasers try to reach the right price.

Therefore, purchasing personnel or department is essential in an organization not only for acquisition of the right quality and quantity of material but also to have it in an economic condition. To this effect, identifying materials with possible low cost is usually one of the responsibilities of purchasing department or personnel.

2.11.3 Identifying the Right Source

The concept of right source deals with selection of the right supplier or manufacturers of materials required. Concerning this, Harris (1985:185) has mentioned some points with which vendors can be evaluated. These include financial status, reference from other customers, punctuality in delivery, guaranteed service or products, discount programs and procedures, past bidding record and service offerings. On the basis of these points, vendors can be evaluated and a sort of vendor's directory, which classifies their level of dependability, can be developed. This directory will help the purchaser in identifying the right source. Similarly preparing catalogues that contains list of possible suppliers of educational materials can also help in providing information to the requisite initiating departments as well as to the purchaser.

As mentioned by Curley (1968:382), reputed suppliers are intangible assets to any organization. For they are not only suppliers of materials but are also extremely important sources of information with regard to market conditions, price trends and the general industrial climate. It

is, therefore, natural that many organizations have accepted source selection as a corporate policy. This helps in bringing about a fair competition among the suppliers and supply failures are kept at a minimum. Source development is also important for import substitution, cost reduction and quality improvement. It should be, however, be remembered that source selection, development and presentation is a continuing activity.

Therefore, the selection of right supplier provides great importance to the educational establishments. For instance, it contributes to the success of the objectives of the establishment. The major concern in relation to the right source is the dependability and capability of suppliers in providing the required items. In order to be sure that the source of our purchase is right, it would be necessary to evaluate suppliers in terms of technical efficiency and organizational capacity in providing the required material.

2.11.4 The Right Quality for Educational Materials

Right quality implies the quality should be available, measurable and understandable as well as practicable. In order to determine the quality of a product, sampling schemes on incoming materials inspection would be useful. The quality particulars are normally obtained from the indents and experience indicates that a substantial portion of the indents prepared by the user departments are invariably incomplete. Such incomplete indents often cause unnecessary delays in procurement as the indenter has to be referred to and, if not referred results in heavy rejection. If the suppliers consistently fail to meet the quality requirements, then the firm may decide to make the item to find out whether such exacting quality requirements are necessary at all. It may mean specialized procedures, tooling, skilled labor and inspection standards. Another important aspect is whether the buyer is able to make the item to such quality standards when established vendors are unable to do so (Gopalakrishnan, 2005:175).

According to Datta (1986:20), quality is the sum total of characteristics or attributes of a certain material, product or part that makes it acceptable by the people. The quality that is acceptable by the users, beyond achieving the objective it is required to, has significance in improving the morale and efficiency of the workers. At this time numerous manufacturers are engaged in producing educational materials of the same kind but of different qualities. Therefore, there should be a certain criteria to judge quality of educational materials during purchasing. To this effect, specification plays a key role. The specification for an item to be purchased describes in

clear and concise terms the characteristics of what is to be purchased and the condition under which the purchase is to be made. The purpose of specification is for quality control. However, in describing specifications, non-essential quality restrictions that do not add input to utility should be excluded for they may add cost Candoli (1984:209). Quality should not only emphasize the technical specification but also balance the technical requirements with the economic condition. This balance may be maintained at least by setting minimum standards which could be considered during purchasing. However, this situation may lead to selection of minimum standards which may not be accepted by users. In this regard, Datta (1986:124) warns that even though there is a need to balance technically required materials with the economic condition it should not lead to the change of required material without the consultation of the users. Though decision regarding specific quality and brand are made in cooperation with purchasing agent especially for instructional materials like textbooks, supplementary reading materials, charts, model or tools, the decision has to be made by some instructional officials or committee of teachers or educational personnel. Moco (1961:338)

This is the case, in a condition where the education system is more decentralized, this becomes sometimes heavy for there may not be sufficient data at their disposal and lack the required adequate training to do so. Hence, in a decentralized system of management, lists of educational materials that fit to the educational objectives of the country should be prepared centrally or regionally where there are capable personnel and access to information with regard to recent educational material that are on the market.

2.12 Educational Resource Allocation

Allocation of educational resources refers to transporting, sending or giving out the resources from available resources to where they are needed and in turn allocated to smaller groups such as teachers and students for use in classes. The allocation includes both far and nearer areas. The allocation includes both resources allocated to users are not to be kept in the store, but are to be handed out for the teachers and the students, to effect good teaching and learning interaction. In allocating educational resources at school level, School principals to formulate allocation mechanism. Once distributed teachers too, are accountable for the loose and mishandling of textbooks and other instructional resources. This is realized by making each student sign against the books received. It is also equally important to inform parents and guardians of students

through a duplicate copy of the signed papers. The signed paper or document shows the kind of instructional materials will help them to check and to continue checking the conditions of the materials, this double-checking system of the school and parents will increase the span of life of the material. Otto (1954:607)

2.13. Receiving and Handling of Educational Materials

Receiving is one of the important activities of educational materials management that helps in inspecting the incoming materials against the initial purchase order in quantity as well as quality.

Inspecting the incoming materials keeps an organization from receiving damaged, wrong and in appropriate quantity of materials. It saves time that can be wasted by sending back wrong and damaged materials that can be received in the absence of good inspection. For this reason, assigning capable personnel for the receiving function is an important task in the management of educational materials (Knezerich & Fowlkes, 1960: 75)).

The inspection of incoming materials can be done one by one or by taking samples depending on the type of materials received. The physical verification can also be done by measuring devices like weight, yardstick, liter, etc. Once the educational materials are checked through inspection on reception, the next function would be handling of these educational materials. At the end of the receipt and inspection stage stocking follows. This is the most under – rated function in stores management. Stocking involves routine activities like sorting out materials coming at the end of inspection process and storing them in their locations. Stocking is very important for easy location, proper identification and speedy issue to the consuming department. This process is very crucial in warehouses where thousands of parts are stocked for meeting consumer needs (Compton, 1970:160).

Materials handling can be defined as the function dealing with the preparation, placing and positioning of materials to facilitate their movement or storage. It covers activities that are performed in warehouse where materials and equipment are picked up and moved. In storing educational materials, planning is important. The reserve place or space available for received materials has to be prepared. This requires considering the weight, type, volume occupancy and the rate of flow of materials from receiving through distribution. Therefore, in order to store

received educational materials safely, the warehouse manager has to have all this information beforehand (Datta, 1986:240).

Educational materials can be stored in either centralized or decentralized storage system. Centralized storage system serves the main unit subsystems by distributing the materials to subunit warehouses. In a centralized warehouse system, since the central warehouse personnel receives, inspects, processes and controls the stored educational materials, there can be better efficiency and control over the stored materials. According to Harris (1985:190), some of the positive features of a centralized warehouse are that it allows better control of received items and better warehouse management through computerization, greater efficiency in space management

and better management of inventory procedures and records and allows more elasticity in distribution to schools. However, unless it is well planned, though it gives elasticity for distribution, there may be problem to serve the branches by distributing from the center due to distance and being over burdened by serving all at a time.

In decentralized storage system, subunits can serve themselves by receiving and controlling the materials. Furthermore, it facilitates immediate distribution and reduces delivery costs. Subunits are free from tight control of the central warehouse. However, a decentralized storage system may cause to subunit level administrator additional problems and the security of stored materials may be endangering due to less facilities and shortage of personnel in skill as well as in number. Whatever type of the storage system selected, educational materials management requires a proper warehouse in which materials can be kept safely and properly. For the proper and safe handling of educational materials, a warehouse must be dry (Harris, 1985:192).

According to Gopalakrishnan (2005:177), in stores lay out, the governing criteria are easy movement of materials, good housekeeping, sufficient space for men and material handling equipment's optimum utilization of storage space, judicious use of storage equipment's such as shelves, racks, pallets and proper preservation from rain, light and other such elements.

Other important factors governing the location are the number of end users and their location, the volume as well as variety of goods to be handled, the location of the central receiving section and accessibility to modes of transportation. Though Harris has mentioned these requirements of a warehouse, in most cases, it is difficult to get these requirements being fulfilled. Not much

attention is given to the construction of a warehouse in schools where some educational materials are being kept for the time. Providing adequate storage for instructional supplies and equipment is a problem in many new school buildings because of the scarcity of more class room space and shortage of funds for construction, many schools provides a bare minimum of storage in new school plant facilities Kimbrough (1968:326).

This condition clearly shows how the educational materials handling is very difficult in schools. Even at regional, zonal and woreda levels, the condition of constructing the above facilities is very poor and many educational materials are exposed to damage. Hence, the absence of good storage shortens the life span of educational materials due to damage. This in turn, would affect the proper utilization of these materials in costing a large sum of money.

The other activity that should be done in materials handling is codification. Codification is a process of identifying the stored educational materials systematically. As mentioned by Mitchell (1973:79), numbers or a combination of numbers and English letters can be used to codify the items of educational materials. Different educational materials may have different names by users. However, if they are coded, during the request, the store man can easily identify the materials by their codes. It helps in avoiding duplication of items and results in the minimization of the number of items, leading to accurate records. Codification enables easy recognition of an item in stores, thereby reducing clerical efforts to the minimum. It also makes the retrieval task very easy. Moreover, in order to make the retrieval process very easy, shelve listing and identifying materials by their types on shelve would be helpful.

Gopalakrishnan (2005:57) also 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. As a result of rationalized codification, many firms have reduced the number of items. It enables systematic grouping of similar items and avoids confusion caused by long description of the items. Since standardization of names is achieved through codification, it serves as the starting point of simplification and standardization.

Materials handling also require an inventory control. Inventory control provides storekeepers with information about educational materials that are in use or in storage. Hence, in the absence of careful inventory control, there could be inefficient use of the materials and wastage of

financial resource by making unnecessary purchase. Some of the advantages of inventory control are; expedite educational planning throughout the system, promotes buying economics by determining needs scientifically, prevent duplication in ordering, facilitate the exchange of materials and equipment throughout the system, reduce losses from mishandling and theft, serves cost accounting and the development of a program budgeting system and provide data for continuous inventories. Therefore, there are two types of inventories: open inventory and closed inventory. Open inventory is a condition of continuous inventory, which is done when the warehouse is functioning whereas closed inventory is done usually and the stores give up providing services and there is no delivery or receiving of goods or materials (Candoli, 1984:221).

Generally, educational materials which have already taken a large sum of money, are stored in the warehouse, organizing the activities of warehousing requires proper guidance and regulation to facilitate retrieval and proper storage of the educational materials at different levels.

2.14. Distribution of Educational Materials

Educational materials distribution involves the movement of educational materials from the warehouse facility to the requesting unit or department (Harris, 1985:193). Educational materials, once received and processed in the storage, should be distributed to their destination. The main purpose of distribution is to help the education system in obtaining the required amount of materials on time with proper care and safety. However, the distribution function may face some problems due to shortage of transport, financial constraints and insufficient amount of educational materials that corresponds to the number of users. Some of these problems may emanate from failure in doing the required managerial functions properly.

Nebiyu (2000:26) taking the Ethiopian education system experience has mentioned some of the reasons that contribute to delay and imbalanced distribution of educational materials. These include inaccurate need requisition as a result of inaccurate data, failure to submit the requisition timely, lack of knowledge of the correct needs requisition, absence of personnel in the planning activity of educational materials, absence of adequate storage so that the warehouse personnel is obliged to free the space. In such a case, unnecessary distribution that does not consider time and need may occur.

For that reason, it is clear that, for effective and efficient distribution in which the required amount of educational materials are distributed timely with optimum costs, good planning, appropriate warehousing and trained personnel are essential.

2.15. Control of the Utilization of Educational Materials

The concern of educational materials management is not only the provision of educational materials. It also concerns their optimum utilization. However, in most cases, this is the neglected part of the management. Educational materials that reach to the schools do nothing unless properly utilized to bring the assumed quality of education. It is not unusual to find some educational materials idle or not sufficiently utilized by teachers. There could be many reasons for this kind of problem. Some of this can be lack of information and training by teachers and lack of attitude towards using the available educational materials (UNESCO, 1984:64).

As mentioned by Jenson (1967:277), some ways in which teachers can be well acquainted with educational materials is to use them effectively. Some other ways are attending educational meetings where exhibits of supplies and equipment are on display, observing demonstration of the use of certain supplies and equipment by individual firms, visiting other schools where certain materials and equipment are being used and experimenting with some particular supply item or equipment on the recommendation of the principal or a teacher. It is not only lack of information or training that hinders the proper utilization of educational materials.

As mentioned by Wood hall (1985:222), the problems of maintenance, repair and replacement of parts or all of the educational materials are the major problems in utilization of educational materials in developing countries. The proper utilization of educational materials can also be hampered by other problems like failure in technical suitability or quality of the procured educational materials. But evaluating the effectiveness of the educational materials, in relation to their use in the teaching learning process and their quality in performing the expected activities properly, may be far from the concerned educational experts. However, the educational material experts could design a mechanism in which relevant information about the effectiveness of the materials and their quality in performing the intended functions can be properly obtained.

As explained by Gopalakrishnan (2005), organizing a feedback mechanism which can be filled by teachers, periodic survey of the existing materials by the educational experts about their

effectiveness and volume of use, requesting supervisors to note data relative to the educational materials and their use during the visit to educational institution are some of the ways in which the educational experts can obtain information and evaluate the effectiveness.

Unfortunately, as can be observed from experience, most of the supervision reports in the study area say nothing about the utilization status of educational materials. Rather, the reports are dealing with the presence or absence of educational materials. Furthermore, it is also rare that schools report mention about the problem of educational materials utilization. Of course, this may be due to the reason that educational materials are absent in their schools. However, even for those existing ones like textbooks, the reports say nothing about utilization. Therefore, this condition shows how the control of educational materials utilization is a neglected function among other functions of the materials management

Store Management

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

Dobler (1977:343) defined, store management as process of setting and achieving goal through store management functions that utilize human, financial and material resources. Store management is responsible for each type of storage materials through proper identification of material, efficient physical handling, and protection of materials against spoilage in the warehouse; in addition, the store manager also controls the activity of materials during receiving, issuing and controlling materials recorded in the ledger in a systematic manual. Even though, receiving and store department seems unrelated, they are very important in materials management chain, according to Dobler and Burt (1990:545) “receiving and store operation provide both service and control function” when the receiving department is responsible for proper receiving of materials from supplies, the store’s department is also responsible for storing materials in appropriate place in storeroom.

Maintenance of Materials and Equipment

Teaching materials and equipment of Schools served for many people's at large throughout the year by the Teachers and students. Due to this and other reasons teaching materials need continuous maintenance and follow-up.

Ray, 238) et.al (2001: stress the point that maintenance enables the provisions of services without stoppage and in addition Elmo (1963), defines maintenance as continues process of repair and replacement of pieces of property whether grounds building or equipment as nearly as possible to the original condition of completeness. It also goes further and includes good care and wise use of materials and equipment in a proper way. According to Harries (1988:209) maintenance function is seen as a layman's job and managers usually undermine its importance. It helps in protecting further damage of the resources and lays a good ground for reuse, which of fir wise, demand or force to buy the newer one, that is of course costly for the organization. It refers to "the logical service involved with a school plant, an auxiliary structure, or an item of equipment in a series of systematized function". Technical and Vocational Education and Training Institutions facility operates and maintenance quality learning. The major business responsibility is to ensure that through the provision of quality maintenance service that the student has an environment which is safe, health and environmentally friendly (MOE, 2005:3)

2.15.1.Types of Maintenance

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

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

3. **Setup maintenance:** in this case are some organizations that have a separate department or section which is responsible for repair and replacement. The setup person immediately goes into action if break down or stoppage occurs. He also gives assistance on the operation of some machines and equipment for those who are unable to do so.
4. **Crisis Maintenance:** as the name indicates, such maintenance takes place after the equipment or the material has been damaged.

2.16. Material Resource Management

The success of an organization actually rests in the way it manages the inputs. Material resources management is the function, which aims at integrating the management of materials in an organization undertaking. Its main objective is cost reduction and efficient handling of materials at all stages and in all sections of the undertaking (Kumar and Suresh, 1998).

Deferent scholars define material resource management in different ways. Ballot (1980) defines material management as organization and mobilization of material resources for the attainment of predetermined goals of an institution. Moreover, for him material resource management is coordinated function responsible to plan for, acquire, store, move, utilize and control materials and final products to optimize usage of facilities, personnel, capital funds, and to provide customer service in line with corporate goals.

In addition to this, Chunawalla and Patel (2006) states that material resource management concerned with those management functions such as planning, organizing, purchasing, warehousing, distribution, inventory controlling and disposal of material resources. These activities form the framework for studying the nature and scope of management. Similarly, Nebiyu (2000), also state the functions of educational materials management as the coordination of planning, purchasing, moving, storing and controlling materials in an optimum manner so as to provide education service at a minimum cost.

As Mbamba (1992:155) defines materials management in education as “ Executive functions concerned with the planning, acquisition, allocation, purchasing, supplying 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.” The objective of material resource

management is to be able to provide what customers want, when and where they want it; thus it maximizes the use of the organization's material resources. Moreover, in Adesina (1990) explained material resources management in general as "... organization and mobilization of all human and material resources in a particular system for the achievement of identified objectives in the 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.

In concept of having one department responsible for the flow of materials, from supplier through production to consumer is relatively new. Although many organizations have adapted this type of organization system, there are still a number of organizations which do not have. Therefore, if companies wish to minimize total costs in this area and provide a better level of customer services, they will have to move in this direction (Arnold, 1998). Moreover, a material resource management as a discipline is the flow of a system with comprehensive and feasible controls from procurement till the final goods reach at the hands of users.

In all countries, even if educational institutions have made many efforts to secure materials and equipment from different sources, but they are not employed to the optimum degree of management of the available once (UNESCO 1984). Because of this, proper management of material resources is influenced by many factors. Some of the influencing factors are; stakeholders' training problems, lack of sufficient time, financial constraints, stakeholders' unfavorable attitude, etc. Similarly according to Tilahun (1999) (as cited in Biruk, 2008) the training status of stake holders, attitude and commitment, financial and material support could foster or hinder the effective management of educational materials at school level.

In past times, 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 (Ministry of Finance and Economic Development (MOFED, 2007).

Generally, even though writers forwarded various functions of material resources management, for most writers the major elements of material resource management includes procurement, warehousing, distribution, utilization and inventory control.

2.17.The Functions of Materials Resource Management

The functions of educational materials management is expressed differently by different writers. For example, Gopalakrishnan (2005:175) discussed that educational materials management includes planning, purchasing, allocating, storing and controlling. According to UNESCO (1984:30) materials resource management functions include planning, warehousing and distribution, utilization and control of materials. In both cases, there is no overlooked function but they differ only in the way they treat each of the functions.

To sum up, in order to achieve maximum outputs in any institutions in general and in educational institutions particularly, deep understanding and implementation of the following major functions or activities of materials management is so crucial: procurement, warehousing, distribution, utilization and inventory control, etc.

2.17.1.Procurement of Material Resources

All organizations, be it business firms or educational institution require supplies of materials and services from outside sources. As a result, procurement is among the major functions that are essential for the existence of the organization. Procurement encompasses all activities involved in obtaining goods and services managing their inflow into an organization. (Gebauer and Segav 2005). In order to ensure that everything goes well through to the end, the organization would have to keep track of the process of the procurement.

2.15.2.Material Resources Planning

Material resource 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 connection to this, Bantie Workie (2004) states that planning is the first functions, it defines the goals and alternatives, it maps out courses of actions that will commit individuals, departments, and the entire organization for days, months, and

years to come. According to MoE (2004,) education planning asks questions about: How do we find adequate resources to implement the education programs? How do we use efficiently the resources to achieve the goals of education? Again, according to Biruk (2008) as cited in Wassenu (2006), efficient planning can help to attain larger and better aggregate results within the limits of available resources. Accordingly, for the effectiveness of utilizing educational materials in the schools planning of educational materials is very crucial specifically for fair distribution of materials among the users, for protecting wastages of annual school budget, to develop saving culture of limited resources and for good management of stocking as well as forecasting the need of users in the utility of educational materials in the school.

In addition, Planning of educational materials is based on need identification of the required educational materials and budget allocated for the purpose. According to Dobler (1971:85), the budget for educational materials can be prepared once the requirements are worked out. Thus, one can see that the purchase budget takes into account the inventory on one hand and orders on the other hand. Besides, the budget itself may be formulated to attain certain targeted inventory levels. It is the usual practice to formulate budgets both in terms of quantity and money.

In the context of educational material resources planning, 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.

On the other hand, a successful planning needs the participation of all concerned bodies. Regarding this, UNESCO (1992) states that “Planning needs participation in decision making at every stage, identification of problems, the study of feasibility, implementation and evaluation.” In the context of the secondary schools, principals, teachers, administrative workers, students, supervisors and the community (PSTA) should participate in material resources planning to achieve the desired objectives of the school.

Totally, one can conclude that planning of material resources in school should take place by participating of the concerned bodies such as principals, teaching and non teaching staffs, PSTAs in order to make the plan successful and able to implement accordingly. In Ethiopia, as Amare (1999:62) argues, educational materials did not get enough attention in the planning process by both planners and implementers in their action plans due to the problem of conceptualization. As evidence, he mentions the budget allocated by the country in the five years Education Sector Development Program (ESDP) plan. This is 6.8 percent out of the total budget of

12.2 billion birr. Therefore, availability and accessibility of data, priority or emphasis given to educational materials among other issue in education, availability of finance or total allocated budget for education are some of the factors that may affect educational materials planning. As indicated above, resources in education are scarce. So, through planning managers identify problem areas and prioritize the problems according to their importance

2.17.3.Purchasing of Material Resources

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 educational materials and equipment. In this connection,

Mahajan (2002) states that purchasing refers to the activities required for obtaining the material resources and services that are needed by the organization. Moreover, purchasing is a responsible for getting the materials, supplies and equipment of the right quality, in the right quantities from the right source, at the right prices and at the right time. Supporting the preceding idea, Harold (2002) states that material purchasing for education and training requires the ability to negotiate the necessary resource and commitments from key personnel in various support organizations, cooperation with other staff units and individuals within the education and training center is vital tsuccess. Productivity and efficiency of supply management is closely related to budgeting money that is available to a person or an organization and a plan of how it will be spent over a period of time and material and non-material wastages, skilled output standards of non-formal level technicians who is responsible to bring change in social and economic aspects.

As of any other business terms, purchasing is defined differently by various experts. For Sharma, (2010), purchasing is the activity engaging for getting the right materials to the right place, at a right time, in the right quantity with a right price. Similarly, Chary (2000) defines purchasing as the process of buying materials for an organization with the intention of facilitating the entire activities so as to achieve the pre-determinate objectives or goals of that particular organization purchasing requires skill personal in order to facilitate the complicated procurement activities. As indicated in Leenders et al. (2006) purchasing, supply management and procurement are used interchangeably to refer to the integration of related functions to provide effective and efficient materials and services to the organization. Thus, purchasing should be done carefully and based on the pre-determined objectives.

Mbamba (1992:198) indicated that, the major function of purchasing embraces the flow of materials from the supplies to an organization which has the intention of facilitating the attainment of predetermined objectives. In a narrow sense, the term „purchasing“ simply describes the process of buying; however in a broader sense, the term involves determining the need, selecting the supplier, arriving at a proper price terms and condition, issuing he contract or order, and following up to ensure proper delivery.

These explanations show that purchasing is not a simple activity performed by any person. This indicates that the purchasing activity requires personnel who could make the proper selection of materials and services, follow up to ensure proper and timely delivery, inspection to insure quantity and quality and other important activities stated as above.

Purchasing procedures

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

- Recognizing the need for the material by using check-up of the available stock.
- Determining the quality of materials which will be required, regarding to the level of available funds.
- Deciding on priority basis in relation to the available funds.
- Drawing detailed specifications of the required items.
- Preparing and publishing tender documents.
- Analyzing the tenders to determine the prices, availability of materials etc.

In addition, Dash and Dash (2008) stated that, materials should be purchased as per the specifications in the quotation approved by the purchase committee, the requirements of the institution and within the fund available for the purpose. Besides, Chapman and Arnold (2004) states that the function of purchasing is much broader and, if it is to be carried out effectively, all concerned individuals in the organization are to be involved. Therefore, obtaining the right materials, in right quantities, with the right delivery time, from the right source, and at the right price are all purchasing functions. Moreover, the act of purchasing consists of these steps: receiving and analyzing purchase requisition, selecting the right supplier, determining the right price, issuing purchase orders, following up to assure delivery dates are met, receiving and accepting materials, and approving supplier's invoice for payment.

Purchasing policy

Every organization has its own policies, whether written or not. An established policy avoids the necessity of making a fresh decision every time when urgent situations arise. A written policy ensures that decisions and actions will be consistent and such an approved policy statement gives authority to purchasers (Sharma 2010).

Accordingly, Worku Berihun (2007) indicated that there is a written guideline of purchasing educational materials in Ethiopia. However, purchasing activities made in the system which lack uniformity and create difficulty for the proper control and management of the resources available. Moreover, according to the guideline the major part of purchasing made such as a bulk of purchasing and most foreign purchases were only the responsibility of MOE and regional education bureau. Now a day, in Addis Ababa schools have been given the mandate to make

most of the purchases. Besides, schools are given the opportunity of small purchasing from their internal income.

In general, purchasing of material resources in school should be performed through purchasing procedures and purchasing policy based on the rules and regulations in school practices. Through this study schools performance of purchasing procedures and purchasing policy will be cross checked.

2.18. Handling and Storage of Material Resources

Materials handling can be defined as the function dealing with the preparation, placing and positioning of materials to facilitate their movement or storage. It covers activities that are performed in warehouse where materials and equipment are picked up and moved. In storing educational materials, planning is important. The reserve place or space available for received materials has to be prepared. This requires considering the weight, type, volume occupancy and the rate of flow of materials from receiving through distribution. Therefore, in order to store received educational materials safely, the warehouse manager has to have all this information beforehand (Datta, 1986:240).

Material handling is an art and a science involving the moving, packing and sorting of substances in any form. Briefly, material handling is the moving of materials from the new storage through production to ultimate consumer with the least expenditure of time and effort, so as to produce maximum productive efficiency at the lowest material handling cost (Solomon Alehegn, 2005). Aderajew Wendimu (2005) also defines material handling as the process of moving materials to, from and through one place /area to the other. The method used for moving material may vary but the basic principles are the same.

According to Chapman and Arnold (2004), material handling is the movement and storage of material resources inside the store. However, the type of material handling equipment used affects the efficiency and cost of operating the store. Therefore, the objective of warehouse is to minimize cost and minimize customer service. To do this, efficient and effective warehouse is to minimize cost and minimize customer service. To do this, efficient and effective warehouse

operations perform to provide timely customer service, keep track of items so they can be found readily and correctly, minimize total physical effort, and provide communication links with customers.

Organizations have to store their goods and raw materials until they are required for production, sell or consumption. According to Ahuja (1998:386) the way of utilization and keeping in appropriate storeroom issues of materials should be conducted economically as well as timely. If not, poor storage of materials in schools may leads to damage, loss of its items or parts etc. due to this, safe materials storage is required to put materials in straight line, in group based on similarity of its item, clearly mark etc, is required to prevent materials from rain, light, etc problems .

Furthermore, Mahajan (2002) has defined storage as "...a function of receiving, storing and issuing of raw materials, tools, spares, consumables etc to the respective department." Hence, according to Maynard in Mahajan (2002), the duties of storekeepers are "To receive materials, to protect them while in storage from damage and unauthorized removal, to issue the materials in the right quantities, at the right time to the right place and provide these services promptly and at least." In addition, proper utilization of materials results in large amount of saving. Proper storing avoids pilferage and wastage of materials. Thus, scientific and systematic method of storekeeping helps considerably in reducing materials cost and expenses.

To do these, according to Haileselesse (1995) stake holders like administrative staff members, teaching staff members and other users, including students, the whole society have a moral as well as a legal obligation to check over all materials and equipment of schools are in a good handling and storage system.

2.19.Distribution of Material Resources

Educational materials distribution involves the movement of educational materials from the warehouse facility to the requesting unit or department (Harris, 1985:193).Educational materials, once received and processed in the storage, should be distributed to their destination. The main purpose of distribution is to help the education system in obtaining the required amount of

materials on time with proper care and safety. However, the distribution function may face some problems due to shortage of transport, financial constraints and insufficient amount of educational materials that corresponds to the number of users. Some of these problems may emanate from failure in doing the required managerial functions properly.

Nebiyu (2000:26) taking the Ethiopian education system experience has mentioned some of the reasons that contribute to delay and imbalanced distribution of educational materials. These include inaccurate need requisition as a result of inaccurate data, failure to submit the requisition timely, lack of knowledge of the correct needs requisition, absence of personnel in the planning activity of educational materials, absence of adequate storage so that the warehouse personnel is obliged to free the space. In such a case, unnecessary distribution that does not consider time and need may occur.

During the distribution of materials and equipment encounters serious problems such as, mismatched between the supplies of educational materials in terms of quantity with the demand of total number of users, lack of meeting or inconformity to the standards, and challenge to get the required materials at a given time duration or absence of securing materials in the right time (UNESCO, 1984:58).

For that reason, it is clear that, for effective and efficient distribution in which the required amount of educational materials are distributed timely with optimum costs, good planning, appropriate warehousing and trained personnel are essential.

2.20. Proper Utilization of Material Resource

Educational material resources are vital if they are in good working condition at all times for their effective and efficient use. Knight (1993) regarding the utilization of resource stated, training institutions have a great duty and responsibility in managing, utilizing and controlling human, financial and material resources for better performance. Moreover, Gopalakrishnan (1998) defined proper utilization of material resources 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 pre-decided services to the customer at a minimum cost.

Moreover, Saxena (2003) indicated that the proper utilization of educational material resources for a given application is very essential for the following reasons. These are: for the completion of the job in minimum possible time, for the completion of the work without damaging the equipment, thus ensuring safety of the equipment, to do the work with less effort and less fatigue, to avoid chances of accidents, and to provide safe operations. As reported in Bekuretsion (2005), optimum utilization of available scarce resources and prevention of all types waste are required by adapting scientific system of management and controls of materials.

Proper utilization of material resources refers to the utilization of material resources effectively and efficiently to sustain organizations as an organization and to accomplish its objectives. Ehiamentor (2003) stated that, the discipline of school business administration concerns the utilization of available resources, which are scarce in relation to the need to achieve the goals of the education. Therefore, if the materials utilized properly, it will guarantee the attainment of planned goal (UNESCO, 1984). This indicates that proper use; directing and controlling materials are important managerial functions in materials management. According to Adesina (1990), the availability of educational resources is very important because of its role in the achievement of educational objectives and goals. Furthermore, the extent to which an organization like educational institution attains their objectives is directly proportional to the educational resources available and their utilization. Hence, to realize the expected educational goals and objectives, it is essential to make available the material resources and to ensure the effective and efficient management and utilization of materials. Accordingly, resource utilization is the main emphasis in school management that finding efficient and effective ways to utilize the existing limited materials in the schools.

In general, any schools concerning material resources due attentions should be given to its management and proper utilization by stake holders like teaching staff members, administrative staff members, etc. Indeed, management and utilization of material resources requires knowledge, skills, dedication etc, of the above stake holders of the sector to utilize and control properly. So that, such type of gaps should be filled through training, working together, etc.

2.20.1.Inventory control

It is clear that one of the functions of material resources management is inventory control. Regarding to this, many writers define the concept of inventory. For instance, according to Datta(1998:193) inventories are defined as, “stock of materials of any kind stored for future use, mainly in the production process.” In addition, Mahajan (2002), defined inventory control as “The scientific method of finding how much stock should be able to provide right type of materials at the right time in the right quantities.” Chary (2000), on the other hand, states that inventory is needed for the uncertainties involved in the usage or availability of the materials. Thus, it ensures that one stage of production does not suffer because of the non-functioning or mal-functioning of the previous stages of production over which the former is dependent.

Inventory is the stock of any item or resource used in an organization. Evertte (2003) states that the basic reason for carrying inventories is that it is physically impossible and economically impractical for each stock item to arrive exactly where and when it is needed exactly. He stated that inventory is crucially important to almost all business or organization whether it is product or service oriented. An inventory system is the set of policies and controls that monitor levels of inventory and determine what levels should be maintained, when stock should be replenished, and how large orders should be (Jacobs, 2008). Inventories and material resources management are, therefore, most important activities in the school program. As a result, a great attention should be given for their accomplishment. Inventory control provides storekeepers with information about educational materials that are in use or in storage. Hence, in the absence of careful inventory control, there could be inefficient use of the

materials and wastage of financial resource by making unnecessary purchase. 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)

Furthermore, inventory system of materials intended to guarantee the proper use of limited resources, to measure the success in achieving the objectives and also to settle the continuing relevance of limited resources in a changing situation (UNESCO, 1984:14)

In conclusion, inventory control is responsible for keeping detailed records of parts and materials in the material for operation of educational activities, these resources need a continuous control to make available information, ideas, methods and convincing data required for pertinent decision making. Proper utilization, effective controlling mechanism and timely efficient inventories of educational materials are vital to facilitate and promote quality of education.

2.21.Stakeholders in the Material Resource Management

Elmore et al. (2007) stated that stakeholders are people and groups inside and outside the organization who have a legitimate interest in the schools and can influence the success of the district's strategy. These include teachers unions, parents, students, school boards, community and advocacy groups, and local politicians and policymakers. Conducting and managing stakeholder relationships in a way that is coherent with the strategy is especially challenging because stakeholders often disagree about what success looks like or how to achieve it. However, effective strategies are informed by the views and priorities of such groups. In moving ahead, education leaders must either persuade a majority of stakeholder groups about the wisdom of their strategy or build a sufficient alliance among some that will prevent the others from becoming a disruptive force.

According to Ojo and Olaniyan (2008), the school principals must work with the staff to determine which supplies and facilities are needed for the attainment of educational objectives. He also plans with the staff for effective use and maintenance of existing supplies and facilities. Therefore, the vice principals as well as the heads of department of each department should take up or assist the principal in discharging these duties for effective teaching and learning.

Razafimbelo (2008) stated that the principal in collaboration with teachers and non-teaching staff of the school should ensure the appropriate registration, utilization, maintenance and management of school resources even though each actor has a specific role in the school system. They should be able to provide documentary proof of any operations relating to the management of school material resources. The resources, land, buildings (classrooms, administration block, toilets), furniture (desks, chairs, tables, stools) equipment (office, classroom, games, kitchen), stationery, books and other teaching/learning materials (audio visuals, TV, video, radio, tape recorder) are largely form the asset base of any given school (Obondoh et al., 2005).

Furthermore, the success of school based management requires the support of the various school-level stakeholders, particularly teachers and non-teaching staff. Moreover, vital to that success is the school principals' support of the decentralization reform. The final and most important source of required support is parents and other community leaders. Therefore, the material management functions performed in the school with the great support of the teachers, non-teaching staff, parent- teachers association, and the community leaders to accomplish the intended educational objectives (Patrinos et al., 2009).

Educational organizations under take the management functions in a collaborative structure, consisting of various partners. In connection to this, FDRE (1994) states that “Educational institutions will be autonomous in their internal administration and in the designing and implementing of education and training programmes, with an overall coordination and democratic leadership by boards or committees, consisting of members from the community (society), teachers and students”. This indicates that the school as an organization as well as its material resources properly managed through the coordination management of the school principal, vice principal(s), PTSA members, teachers, non-teaching staff, and students. In the sum, in making decisions in relation to material resources management in the school, the school principal should involve the teachers and non-teaching staff, the students as well as the community through Parent-Student-Teachers-Association. Thus, participation by parents, teachers, non-teaching staff, community members and the pupils is a key cornerstone of proper and effective material resources management.

2.22. Materials Management in Ethiopian Context

According to Samuel Wolde (2011) training materials management in Technical, Vocational and Education Training was poorly practiced. The main objectives of his study was to evaluate training materials management practices and its impact on the quality of trainings in government TVET colleges in Addis Ababa, and recommend ways of improving the practices of training materials management. The result of his study indicated that there was no supply of materials in time, storage and utilization were not effective and materials were inadequate. Due to this the quality of education and training in government TVET colleges is highly affected. He suggested short term training has to be provided to materials users and materials management staff in relation to materials planning, storage, and utilization, and awareness raising work has to be done

by concerned bodies such as TVET agencies and representatives in MoE. But, all materials management functions were not incorporated in his study. However, the following features of school materials resources management were reported in Ethiopia (Worku, 2007; Hailesellassie, 1995, Tafesse, 2007 reported as follow)

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.

2.21 Summary of the Review Literature

As it can be seen from the above review literature, this thesis under this section includes the theoretical, empirical and conceptual from works are included in the study. This study presents about the theories in which this study guided by, the empirical literature, that deals about those earlier studies that done on the schools educational materials management and its utilization. Moreover, they 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 these activities. As a result, the teaching learning processes were affected by these activities. So the study has relation with my title that is the management of educational material resources in Government secondary schools of Addis Ababa City Administration. To

sum up, the above result indicates that in Ethiopia materials management practices in Educational institutions needs to be well studied and seek improvement in the areas.

CHAPTER THREE

3. METHODOLOGY OF THE STUDY

3.1. Design of the Study

This study was designed to assess of school material resources management and utilization in Jimma Zone Secondary Schools. In order to meet the objective of the study, descriptive survey design was employed, because it helps the researcher to describe the existing conditions and make inference related to this study. The use of descriptive survey method is well supported by Best and Kahan (2005), “descriptive survey design is appropriate to describe condition that exist, opinions that are held, and processes that are going on, trends that are developing and also to assess large sample size”.

3.2. Research Method

This study was conducted through a mixed research approach. A mixed research approach is a procedure of collecting, analyzing, and “mixing” both quantitative and qualitative methods in a single study or a series of studies to understand a research problem (Creswell & Plano Clark, 2011). Therefore, mixed research approach ignores the weakness of studying the problem through either quantitative or qualitative method alone, and provides more comprehensive and convenient evidence for the study (Creswell, 2012). The procedure of this study was carried out through concurrent triangulation mixed method. Therefore in this study, the researcher collected and analyzed both quantitative and qualitative data simultaneously then it was used the qualitative data to enrich and triangulate the result of quantitative observation (Miller and McKenna, 1998).

3.3. Sources of Data

Data for this study was collected from primary sources. The primary sources were schools principals and the teachers in selected woredas secondary schools. The decision to use this participant as of data is based on the expectation that, they have better experience and knowledge about the status of resource owned by the schools and how effectively and efficiently they utilize the limited resources allocated to their schools.

3.4. Sample and Sampling Techniques

The site of the population for this study was limited to Jimma zone woreda secondary schools. There are 22 woredas in jimma zone. Among these, this study was conducted on five woreda secondary schools were selected purposively on the bases of the senior and very experienced woredas .Therefore, Shabe Sombo woreda ,Seka ,Dedo ,woreda , Kersa woreda , and Mancho woreda . The number of sample teachers from each selected schools were determined the size of teachers in each secondary schools. In this regard, Gay and Arirasian (2003:P.111) state that the sample of 10% to 20% of the target population is often used in descriptive research for large population. Therefore, the total number of research participants were 169, i.e. 7(100%) school principals (1 from each selected schools), 14(100%) school vice principal (2 from each selected schools), 28 (100%) department heads (four from each school) and 120(41.3%) of teachers from the selected secondary schools.

Table 1 : Sample size of target group.

Types of respondents	Target Population	Sample population	Sample techniques	Data gathering instruments
Teachers	290	120	Simple random sampling	Questionnaires
Principals	7	7	Purposive sampling	Interview
Vice-principals	14	14	Purposive sampling	Questionnaires
Department heads	28	28	Purposive sampling	Questionnaires
Total	339	169		

3.5. Instruments of Data Collection and procedures

In this study, the data was gathered by using three data collection instrument. These instruments were including questionnaires and interview..

Questionnaire

A questionnaire for teacher included the utilization of questionnaires, challenges those are in the effective utilization instructional facilitates would be prepared by researcher which was compose

the Liked scale and divide into two sections which include, personal information section that serves to provide an accurate description of the respondents and utilization, status and challenge that are sought to the effective utilization of material resources owned by each school.

The data collection session was arranged at the time suggested by secondary schools' permission and the willingness of the participants at the presence of the researcher at the site. Moreover, to develop appropriate instruments for the study, the researcher would administer a pilot study at two schools to test the reliability of the questionnaires. The questionnaire consists of closed-ended and open-ended questions.

Interview

Interview gives the needed information face to face. Moreover, interview is important to find out what is in someone else's mind (Best and Khan, 2005). Gubrium and Holstein (2001) also stated that interview is a useful instrument to generate often important and crucial information. Thus, with this assumption interview was used as a data gathering instrument and a semi-structured schedule was prepared on issues related to school educational materials resources management and utilization.

In this study to get additional information to the data obtained from the teachers through questionnaires, the interview was employed as a data collection instrument. To this end, a semi-structured interview was set to collect information from 5 principals of the selected secondary schools. This type of interview was favored as it allows a wider freedom to ask further questions and helps control the direction of the interview in order to elicit the sought data. Moreover, it enables the interviewees to express their ideas and yet its semi-structural nature to save them being too long.

3.6 Validity and Reliability of the Instruments

Pilot Test

Before the final questionnaires were administered, pilot testing was conducted in Agaro secondary school which was not included in the sample study. It helps to ensure that the respondents understand what the questionnaire wants to address and was with the objectives of checking whether or not the items contained in the instruments could enable the researcher to gather relevant information, to identify and eliminate problems in collecting data from the target

population. The draft questionnaires were distributed to 2 school principal, 2 vice principals, 4 department heads and 8 teachers of the above stated school was selected purposively. After the questionnaires was filled and returned the reliability and validity of items was measured by using Crobachs alpha method by the help of SPSS version 21 . The obtained test result is 0.87. Then as the result indicated it is good indication of the internal consistency of items. That is the instrument was found to be reliable as statistical literature recommend a test result of 0.75 (75% reliability) and above as reliable.

Validity of the Instruments

To be sure of the face validity, senior colleagues were invited to provide their comment. The participants of the pilot test was also be first informed about the objectives and how to fill, evaluate and give feedback on the relevance of the contents, item length, clarity of items, and layout of the questionnaire. Based on their reflections, the instruments were improved before they are administered to the main participants of the study. As a result of the comment, two irrelevant items was removed; two lengthy items was shortened, and some unclear items were made clear.

Moreover, to verify the content validity of the instrument, the questionnaire with sufficient number (160 copies) of items addressing all objectives of the study was administered to large number of Jimma zone, some selected Woreda and then, 160 copies was collected with high return rate of 96.5%. Triangulation of data gathering tools was executed by using semi structured interview. Information sources was multi-faceted by using variety of respondents such as, principals, vice principals, Supervisors, head departments, teachers and Woreda education office heads. Finally, after the necessary improvement made, the questionnaires was duplicated and distributed with necessary orientations by the researcher

3.7. Methods of Data Analysis

The quantitative data that was obtained through questionnaire was analyzed by using, frequency and percentage. The information that was obtained through semi-structured interview open-ended question and observation was analyzed qualitatively to supplement the quantitative data. The data that was obtained from the questionnaires of teachers, principals and supervisors was filled, tabulated and registered as frequency that was show the number of respondents for each items.

3.8 Ethical Considerations

Efforts were made to make the research process professional and ethical. Louis Cohen et al. (2007) have remarked that in qualitative and quantitative research full attention should be given for moral and ethical issues. Therefore, the researcher give a particular consideration to ethical principles developed by this and other scholars, particularly regarding ensuring informing consent and developing confidentiality, maintaining anonymity and other related ethical issues. Furthermore, all the materials were used for this research have been duly acknowledged.

CHAPTER FOUR

4. DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This section expects to analysis, interpreted and presents the data obtained from quantitative and qualitative data. The researcher designed questions for the 160 of the sample size of the study, but 9 questionnaire were not returned back. The data obtained from the respondents were analyzed concurrently in which the result from both data were analyzed and interpreted parallel, and intermingle described the result.

4.2 Socio- Demographic Information of the Respondents

Table 4.1 Socio –demographic Characteristics of Respondents

No		Characteristics	Frequency	Percentage
1	Sex of Respondents	Male	108	68
		Female	52	32
		Total	160	100
2	Age of Respondent	20-30	43	27
		31-40	95	59
		41-50	21	13
		Above 50	1	1
		Total	160	100
3	Qualification	Diploma	9	5.6
		Degree	139	86.8
		Postgraduate	12	7.5
		Total	160	100
4	Work experience	01-05	28	17
		06-10	86	54
		11-15	37	23
		15 and above	9	6
		Total	160	100

Source: Field data (2020)

Regarding sex of the respondents, majority of the respondents were male which account for 148 (92.5 %). Next, majority 95 (59%) of the participants were found between 31-40 age. Regarding, the educational back ground of the respondents, majority 139 (86.8%) of them were degree holders, 12 (7.5%) were post graduate teachers and minority 9(5.6) of them were diploma holders. As table 4.2 shows, majority (54%) of the participants has 6-10 year of work experiences, (23%) of the respondents are working in this organization for 11-15 years, as well

as (17%) of them has 1-5 work experience , and the rest (6%) of them had more than 15 years' work experiences .

4.1 The planning of educational material resources

Table 4.2 : How to plan on educational material resources

Statement	Mean	Standard deviation
Planning educational material resources are based on need identification	2.34	0.84
Planning of educational materials resources in school is based on budget allocation.	2.43	0.81
The budget plan for the educational material resources can be prepared once the requirements are worked out	2.35	0.76
The budget plan in school is formulated to attain certain target inventory levels.	2.22	0.85
Planning of educational material resources in school raises the issue of fair distribution among the users.	2.34	0,89
Material planning correspond schools annual plan.	2.39	0.70

Sources : Own survey, 2021

As table 4.1 confirm that the planning educational materials resources are not based on need identification, confirm with result of Mean=2.34 and SD =0.84. Therefore, this show that the planning educational material's resources are not based on the need identification of the school .Respondents were also asked about whether the planning educational materials resources in the school is based on the budget allocation, the result of Mean =2.43 and SD=0.81 respectively .Therefore, this revealed that in all selected secondary schools, planning of educational planning materials resources in the school is not considered the budget allocation of the school . Further, respondents were also asked about how the budget plan for the educational materials resources can be prepared one the requirements are worked , and this was also confirm with the result of Mean =2.35 and SD =0.76 . Therefore, the data show that the budget plan for the educational materials resources did not prepared on the requirements work out in the school.

The budget plan in school is not formulated to attained certain target inventory levels, this also supported by the result of Mean =2.22and SD =0.85 .Therefore, this indicated that the budget plan in school is not formulated to attained certain target inventory levels.

As table 4.1 also revealed that planning of educational materials resources in school is not raise the issues of fair distribution among the users,, this data can also be approved by the result of Mean =2.34 and SD=0.89.The result of indicated that there is no fair distribution of the educational materials resources among the users.

Under table 4.1 respondents were also asked about whether planning correspond schools annual plan, the result of Mean =2.39 and SD=0.70, so as the data obtained confirmed that planning on educational material resources do not correspond schools annual plan.

In addition to the quantitative result, the data obtained from interviewee also confirm that *“the current planning process of educational materials in satisfying the demands of the school societies is below satisfactory. On the open-ended items most of the respondents reported that the major problem of the school is the transparency of purchasing system. More schools do not used or collect relevant information before planning was made, the staff was no more participated during the planning activities and the reporting system of implementation for staff was not strong”*. From the above respond one can conclude that the process of planning is not participatory and purchasing process is not clear for staff.

The data collected through interviews revealed that *“there is no accurately set system that supports stakeholders to participate in controlling the educational materials. But supervisors included in the chick list if there shortage of text books, availability and function of laboratory materials and apparatus etc”*.

Due to long purchasing procedures followed, educational materials are not provided on the time users needed. This results in delay, low quality, lack of transparency; which hinderthe effectiveness of the overall purchasing system. In addition purchased materials do not satisfied needs of users.

4. .2 The purchasing of educational material resources in school

Table 4.3: How is the purchasing of educational materials

Statement	Mean	Standard deviation
Peoples who are responsible for the quality of material resources adequately check items against purchase order	2.49	.85
The existing of purchasing guideline applicable.	2.23	.80
Users clearly specify items the request for purchase.	2.62	.94
Purchasing of material resources is made by appropriate personnel	2.43	.93
The quality committees for purchasing material resources in school are experienced.	2.33	.92
Purchasing is based on annual plan.	2.46	.89

Sources: Own survey, 2021

Under table 4.2 respondents were asked about whether peoples who are responsible for the quality of materials resources adequately check items against purchase order, the value of Mean =2.49 and SD =0.85, therefore, this result shown that peoples who are responsible for the quality of materials resources are not adequately check the items against purchase.

As table 4.2 also confirm that there the existing of purchasing guideline is poorly applicable, the result of Mean =2.23 and SD =0.80 and the result of the obtained data indicated that those committees who are assigned to purchase the school educational resources are not follow the guidelines of purchasing.

Users did not clearly specify items that request for purchase, the result of Mean =2.62 and SD =0.94. Therefore, the result of the data signaled that items not specified by users, rather the users use educational resources explosively.

Under the same table respondents were also asked about how purchasing of materials resources is made by appropriate personnel, Mean =2.43 and SD =0.93result also confirm that purchasing of materials in these selected secondary school was carried out by inappropriate personnel.

Questions about whether the committees for purchasing materials resources in school are well experienced, the result of Mean =2.33 and SD=0.92 also approve that as there were

inexperienced purchasing committees assigned in the schools to purchase the educational resource materials. How the purchasing is based on annual plan, and this also confirm with the Mean =2.46 and SD=0.89 that the educational material resource purchasing system of these selected secondary school is not considered the annual plan of the schools.

The interviewee also revealed that the major problem of the school is the transparency of purchasing system. More schools do not used or collect relevant information before planning was made, the staff was no more participated during the planning activities and the reporting system of implementation for staff was not strong. From the above respond one can conclude that the process of planning is not participatory and purchasing process is not clear for staff.

According to most of the interviewees' *"results there were school material purchases made without checking specification of purchase orders. This greatly hurts the durability of educational materials like chairs, doors, windows, plasma, computer, copy machine, and etc. So, it affects teaching and learning process"*.

The interview with stake holders, *"the educational material resource provision and supervision experts revealed that, quality committee was not adequately check items against purchase order, the durability of materials and expiry of chemicals are more or less unsatisfactory. This is because the less experience of purchasing quality committee to identify technical specifications for materials to be purchased"*.

In addition, according to the interviewees, with PTA members, *purchasing quality committee was assigned to check whether materials are buying as the specification or not. Due to the less experience of the committee, they did not exhaustively cross check the purchasing materials. Whatever it is whether matches or mismatch with the specification the school receive it, because the material is needed urgently.* Thus, from the responses given, it is possible to say that the quality committee adequately checking items against purchase order is not satisfactorily implemented

In this regard, UNESCO (2011) states that in educational planning and management in Ethiopia many educational planners and managers have limited technical skills in planning skills that were needed to undertake their mission and tasks efficiently.

4.3 The Practice of Resource Utilization in Secondary School.

Table 4.4: How the school utilizes educational resources

Statement	Mean	Standard deviation
The school is effective regarding utilization of material resources.	2.47	.95
The utilization guideline of material is effective.	2.43	.83
Responsible bodies follow up and check for proper utilization of available material resources.	2.33	.77
Users are accountable for wastage of materials.	2.48	.84
Teaching and non-teaching staff involve in realizing the proper utilization of material resources.	2.65	.95
The adequacy level of material resources in your school is effective.	2.77	.97

Sources: Own Survey of questionnaire, 2021

Under table 4.3 respondents were asked issues related with practices of resources utilization in secondary schools, so that questions about whether the school is effective regarding utilization of materials resources, this also approved by the result of Mean =2.47 and SD=0.95,so that this indicate that the se selected schools are ineffective in utilization of materials resources .

The utilization guideline of material is ineffective, that the result of Mean =2.43 and SD=0.83 also confirm that the utilization guideline of material is ineffective in these selected secondary schools. Further, respondents were also asked about how responsible bodies follow up and check for proper utilization of available material resources, and that majority 128(80%) of the asked respondents disagree that responsible bodies did not follow up and check the for proper utilization of available materials resources in these secondary schools as the result of the Mean =2.33 and SD =0.77 also indicated that as there was poor follow up and check of the utilization of the available materials resources of these e selected secondary schools .In contrast to questions related to responsible bodies , respondents were also asked about the weather users area accountable for the wastage of materials in the school, that users were accountable for the wastage of materials, and this also approved by the result of Mean =2.48 and SD=0.84 that there was wastage of educational material resources in these secondary schools.

Further, respondents were also asked about whether the teaching and non-teaching staff involve in realizing the proper utilization of material resources that the teaching and non-teaching staff involved in realizing the proper utilization of materials resources , the result of Mean =2.65 and SD =0.95 also revealed that the teaching and non-teaching staff were not involved in realizing the proper utilization of materials resources that the adequacy level of material resources in these selected school is effective, confirmed by the result of Mean =2.77 and 0.97 and that there was inadequacy of level of material resources in the se selected secondary schools.

The interviewee also confirms that *“there is no taking care at all that why:-less commitment and self-awareness on taking care for school properties astheir own properties. Moreover, the schools had not any strategies or mechanism to safe materials from any wastage”*. The response indicates that, among the majority of school societies with taking care for school property was less attention. From the above data, one can conclude that material protection from any wastage was at low level and it needs more improvement on the practices of the above activities in secondary schools.

This perception was supported by UNESCO (1992) which indicated that the success of a plan requires the involvement of all concerned bodies. In the context of the secondary schools, principals, department heads, school support staffs’ supervisors and the community should participate in material resources planning to achieve the desired educational objectives of the school. Thus, it looks like that there is no satisfactory involvement of users in educational materials planning process.

4.4 The Practice of educational materials maintenance activities carried out in your school

Table 4.5: The maintenance activities of educational resources in the school

Statement	Mean	Standard deviation
The maintenance activity of materials effectively performed.	2.38	0.87
The Practice in maintenance of material resources in your school is properly/adequately implemented.	2.32	0.83
Teaching and non-teaching staff participate in the activity of maintenance of material resources.	2.44	0.92
Your school is effective regarding the maintenance of educational materials.	2.39	0.82
The efficiency of your school regarding the maintenance of material resources is high.	2.24	0.86

Sources: Own survey, 2021

As table 4.4 revealed that the maintenance activity of materials in selected secondary schools are not effectively performed the result of Mean =2.38 and SD=0.87 also confirm this data.

Respondents were also asked about, whether the practice in maintenance of material resources in the school is properly/adequately implemented that the Mean =2.32 and SD =0.83 also revealed that as there was inappropriate practice in maintenance of materials resources in these secondary school.

The respondents also asked about how the teaching and non-teaching staff participates in the activity of maintenance of material resources, the result of Mean =2.44 and SD =0.92 show that the teaching and non –teaching staff did not fully participated in the maintenance of materials resources in the school.

The school are ineffective regarding the maintenance of educational materials, the Mean =2.39 and SD =0.82 revealed that the schools were ineffective regarding the maintenance of educational materials. Finally, respondents were also asked about, whether these selected schools has high efficiency regarding the maintenance of material resources, the result of Mean =2.24 and SD =0.86 also confirmed that as there was low efficiency of these selected secondary schools regarding the maintenance of materials resources.

In addition, according to the interviewees, *“purchasing quality committee was assigned to check whether materials are buying as the specification or not. Due to the less experience of the committee, they did not exhaustively cross check the purchasing materials. Whatever it is whether matches or mismatch with the specification the school receive it, because the material is needed urgently”*.

Thus, from the responses given, it is possible to say that the quality committee adequately checking items against purchase order is not satisfactorily implemented. Supporting this idea, MoE in Worku Berihun (2007) indicated that the purchasing of materials and equipment made in the education system lack uniformity and create difficulty for the proper control of the activity.

CHAPTER FIVE

5. MAJOR FINDING, CONCLUSION AND RECOMMENDATION

5.1 DISCUSSION OF MAJOR FINDING

Based on the results of data that obtained from both quantitative and qualitative data, the following major finding were found out in line to the objectives (practices needs assessment ,planning ,purchasing , controlling and other educational materials, practices of utilization of educational materials, adequate maintenance and factors affecting utilization of educational materials and utilization) :

1. The planning educational materials resources are not based on need identification. Therefore, this show that the planning educational material's resources are not based on the need identification of the school .The planning educational materials resources in the school is based on the budget allocation .Therefore; this revealed that in all selected secondary schools, planning of educational planning materials resources in the school is not considered the budget allocation of the school. As the Bantie Workie (2004) states , planning is the first functions, it defines the goals and alternatives, it maps out courses of actions that will commit individuals, departments, and the entire organization for days, months, and years to come.

Further, respondents were also asked about how the budget plan for the educational materials resources can be prepared one the requirements are worked out. Therefore, the data show that the budget plan for the educational materials resources did not prepared on the requirements work out in the school. The budget plan in school is not formulated to attain certain target inventory levels. Therefore, this indicated that the budget plan in school is not formulated to attain certain target inventory levels.

2. The planning of educational materials resources in school is not raise the issues of fair distribution among the users .The result of indicated that there is no fair distribution of the educational materials resources among the users and peoples who are responsible for the quality of materials resources adequately check items against purchase order, therefore, this result shown that peoples who are responsible for the quality of materials resources are not adequately check the items against purchase. As mentioned by UNESCO (1984:34), in the process of planning, in addition to the data for quantitative requirements of educational materials, the presence of

qualitative information, standards of educational materials with respect to the education objectives of a country is essential

3. The existing of purchasing guideline is poorly applicable, and the result of the obtained data indicated that those committees who are assigned to purchase the school educational resources are not follow the guidelines of purchasing. Users did not clearly specify items that request for purchase .Therefore, the result of the data signaled that items not specified by users, rather the users use educational resources explosively. How purchasing of materials resources is made by appropriate personnel, that purchasing of materials in these selected secondary school was carried out by inappropriate personnel.

According to Ojo and Olaniyan (2008), the school principals must work with the staff to determine which supplies and facilities are needed for the attainment of educational objectives. He also plans with the staff for effective use and maintenance of existing supplies and facilities. Therefore, the vice principals as well as the heads of department of each department should take up or assist the principal in discharging these duties for effective teaching and learning

Whether the committees for purchasing materials resources in school are well experienced, there were inexperienced purchasing committees assigned din the schools to purchase the educational resource materials. How the purchasing is based on annual plan, that the educational material resource purchasing system of these selected secondary school is not considered the annual plan of the schools.

As Mbamba (1992) indicated that, the major function of purchasing embraces the flow of materials from the supplies to an organization which has the intention of facilitating the attainment of predetermined objectives. In a narrow sense, the term „purchasing“ simply describes the process of buying; however in a broader sense, the term involves determining the need, selecting the supplier, arriving at a proper price terms and condition, issuing he contract or order, and following up to ensure proper delivery (Alijian, 1973:1).

Whether the school is effective regarding utilization of materials resources, so that this indicate that the se selected schools are ineffective in utilization of materials resources. The utilization guideline of material is ineffective, that the utilization guideline of material is ineffective in these selected secondary schools.

4. Further, respondents were also asked about how responsible bodies follow up and check for proper utilization of available material resources that responsible bodies did not follow up and check the for proper utilization of available materials resources in these secondary schools that as there was poor follow up and check of the utilization of the available materials resources of these e selected secondary schools.

Users were accountable for the wastage of materials and there was wastage of educational material resources in these secondary schools.

This finding also confirmed by Knight (1993) regarding the utilization of resource stated, training institutions have a great duty and responsibility in managing, utilizing and controlling human, financial and material resources for better performance.

Teaching and non-teaching staff involved in realizing the proper utilization of materials resources as well as the result also revealed that the teaching and non-teaching staff was not involved in realizing the proper utilization of materials resources.

5. The adequacy level of material resources in this selected school is effective and that there was inadequacy of level of material resources in the elected secondary schools. The maintenance activities of materials in selected secondary schools are not effectively performed. The practice in maintenance of material resources in the school is properly/adequately implemented, and also the revealed that as there was inappropriate practice in maintenance of materials resources in these secondary school.

5.2 Conclusion

Based on the major findings, the following conclusions were drawn:

The major problems that found challenge for material management system are ; lack of uniformity of educational material resources management, low awareness about material management functions and there integrated relation between each activities. Moreover lack of continuous supervision and controlling system from outside and inside the schools were infective. The practice of educational material resources management was found to be poor in terms of involving stakeholder's wise and efficient use of material management functions: procurement, warehousing, distribution, utilization and inventory control.

The storage of educational material is not reordered or identified even if there is some effort to record materials in many of the sampled schools. As storekeeper make a mess of materials to search for one. Follow up and check made by school principals and educational material resource provision and supervision experts for utilization and the protection of materials from any wastage was poorly exercised. Lack of timely distribution of purchased materials as soon as user's needed practices was also a serious problem in these sampled schools. The process of updating inventory in these schools was poorly implemented.

5.3 Recommendation

Based on the finding of the study, the researcher forwarded the following recommendation:

Material resource management is something that requires attention in school, So that

1. The maintenance of the school educational resources is advisable if it carrying out deliberately by the teaching and non-teaching staff of these selected secondary schools. The utilization guideline of material is better if it effectively performed by those who have better experience principals and teachers of these secondary schools.
2. People do not pay attention for property aspects and as result carelessness, irresponsible and less accountability while they are misused, broken and damaged. They perceive it to be a single manager's or a section's duty. However, by and large, material and equipment management is a staff function. It requires a collaborative effort of all the education office and the school. Therefore, the education office and the school jointly work on the management of material resources in order to make school support staffs, students, teachers and the communities at large develop a feeling of responsibility and a sense of ownership towards the educational properties.
3. Users (teachers, principals and directors) are advisable if they will be accountable for wastage of materials in the schools. The purchasing of material resources is made by appropriate personnel and evaluated based on the principles of purchasing of the school educational resources. Responsible bodies follow up and check for proper utilization of available material resources in the schools.
4. The planning educational material resources are better if they are based on need identification of the schools. The budget plan in school is formulated to attain certain target inventory levels of

these selected secondary schools and the users clearly specify items the request for purchase before engaged on the purchasing process.

5. It is recommended to woreda education office and the secondary schools to set experience sharing schedule for school leaders, teachers and school support staffs to learn a good lesson from best practices in material resource management functions in particular.

6. Management of material resource a collaborative effort of all the sub city education office and the school. Therefore, the education office and the school jointly work on the management of material resources in order to make school support staffs, students, teachers and the communities at large develop a feeling of responsibility and a sense of ownership towards educational properties.

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APPEDICES

JIMMA UNIVERSITY

DEPARTMENT OF EDUCATIONAL PLANNING AND MANAGEMENT

APPENDIX-A: Questionnaire for Academic Staff and Administrative Staff

I would like to express my appreciation in advance, for taking your time to fill this questionnaire. The main purpose of this questionnaire is to get reliable data on the study entitled “*assess school material resources management and utilization in Jimma Zone Secondary Schools*”. Thus, your genuine response will help the study to provide reliable and valuable suggestions and recommendations; your responses will be used only for academic purpose.

General Directions

1. No need of writing your name
2. Mark “√” tick in the box of your alternative answers
3. Please give answer to each closed ended items as appropriate
4. Please give your short and precise response to the open-ended questions

Section 1: General Information and Personal Data

1. Name of the school: _____

2. Sex: Male Female

3. Age:

<24 years 25-29 years 30-34 years 35-39 years

40-44 years 45-49 years >49 years

4. Level of educational qualification

Below Certificate Level Certificate

College diploma BA/BSc

MA/MSc

5. Year of service.

<6 Years 7-12 years

13-18 years 19 year and above

6. Your current job _____

I. Questionnaires related to planning of educational material resources

No	Items regarding planning educational material resources	Scales				
		strongly agree	Agree	undecided	Disagree	strongly disagree
1	Planning educational material resources are based on need identification.					
2	Planning of educational materials resources in school is based on budget allocation.					
3	The budget plan for the educational material resources can be prepared once the requirements are worked out.					
4	The budget plan in school is formulated to attain certain target inventory levels.					
5	Planning of educational material resources in school raises the issue of fair distribution among the users.					
6	Material planning correspond schools annual plan.					

II. Questioners related to purchasing of educational material resources in school

No	Items related purchasing of educational material resources	Scales				
		strongly agree	Agree	undecided	Disagree	strongly disagree
1	Peoples who are responsible for the quality of material resources adequately check items against purchase order.					
2	The existing of purchasing guideline applicable.					
3	Users clearly specify items the request for purchase.					
4	Purchasing of material resources is made by appropriate personnel					
5	The quality committees for purchasing material resources in school are experienced.					
6	Purchasing is based on annual plan.					

iii .Questioners related to Practice of Resource Utilization in Secondary School .

No	Items regard resource utilization	Scales				
		Strongly agree	Agree	undecided	disagree	Strongly disagree
1	The school is effective regarding utilization of material resources.					
2	The utilization guideline of material is effective.					
3	Responsible bodies follow up and check for proper utilization of available material resources .					
4	Users are accountable for wastage of materials.					
5	Teaching and non-teaching staff involve in realizing the proper utilization of material resources.					
6	The adequacy level of material resources in your school is effective.					

IV. Questioners related to Practice of educational materials maintenance activities carried out in your school

No	Items Regarding Maintenance	Scales				
		strongly agree	Agree	undecided	Disagree	strongly disagree
1	The maintenance activity of materials effectively performed.					
2	The Practice in maintenance of material resources in your school is properly/adequately implemented.					
3	Teaching and non-teaching staff participate in the activity of maintenance of material resources.					
4	Your school is effective regarding the maintenance of educational materials.					
5	The efficiency of your school regarding the maintenance of material resources is high.					

APPENDIX-B: Interview for School Principals

Dear respondent, the purpose of these interviews is to collect relevant data on the study entitled “*assess school material resources management and utilization in Jimma Zone Secondary Schools*”. Your responses are vital for the success of the study. You are kindly requested to response the interview confidentially. Be sure that your response will not be used for other purpose rather than academic.

Part – I: General Information and Personal Data

1. Sex_____
2. Age_____
3. Academic Qualification_____
4. Experience in year as:a teacher_____Department Head_____vice principal _____
5. Current position _____

Part – II: The main questions of the interview

1. How do you see the management of educational materials in your school related to planning, purchasing, utilizing and maintaining to manage educational material resources in your school?
2. How do you implement maintenance activities of educational resource management in your school?
3. What did you do to assemble and utilize the relevant individuals within and outside the school for efficient materials and facilities management?
4. Who are the main responsible bodies in the management and utilization of such materials? What strengths and weaknesses you have ever experienced in discharging your responsibilities with this regard?
5. What are the major factors (problems) that can affect the management and utilization of educational materials in your school?
6. What do you suggest to solve the overall problems in educational materials management and utilization in your schools?

**APPENDIX-C: Interview for curriculum officers and secondary schools
supervision Coordinator of woreda Education Office**

Dear respondent, the purpose of these interviews is to collect relevant data on the study entitled “*assess school material resources management and utilization in Jimma Zone Secondary Schools*”. Your responses are vital for the success of the study. You are kindly requested to response the interview confidentially. Be sure that your response will not be used for other purpose rather than academic.

Part – I: General Information and Personal Data

1. Sex _____ 2. Age _____ 3. Academic Qualification _____
4. Experience in year as: a teacher _____ Principal/vice principal _____ Supervisor _____
5. Current position _____

Part – II: The main questions of the interview

1. How do you see the management of educational materials in the secondary schools related to need assessment, planning, purchasing, controlling, moving, storing, maintaining and inventory control?
2. What strengths and weaknesses do you observe in the secondary schools in the management of educational materials?
3. What management approaches or strategies do the principals use for educational materials management?
4. How adequate are the maintenance activities carried out on the educational materials in the school? Can you explain it with practical examples?
5. What are the major factors (problems) that can affect the management of educational materials in your sector schools?
6. What do you suggest to solve the overall problems in educational materials management in