THE ASSESSMENT OF AVAILABILITY AND UTILIZATION OF INSTRUCTIONAL MATERIALS IN SELECTED SECONDARY SCHOOLS OF WEST WOLLEGA ZONE

BY

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A thesis submitted to the School of Graduate Studies Addis Ababa University in Partial Fulfillment of the Requirement for the degree of Master of Arts in Educational Leadership

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This is to certify that the thesis prepared by Diriba Teshome Irena entitled: The Assessment of Availability And Utilization of Instructional Materials in the Selected Secondary Schools of West Wollega Zone and Submitted in Partial Fulfillment of the Requirements for the Degree of Masters of Arts Educational Planning and Management Complies with the Regulations of the University and Meets the Accepted Standards whit Respect to Originality and Quality.

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Abstract

This study investigates the availability and utilization of instructional materials in selected secondary schools of West Wollega Zone. In order to attain the objectives of the study a descriptive survey method was utilized. The study sample contained 8 school principals, 8 librarians, 78 teachers and 462 students. The students and the teachers were selected based on simple random sampling technique and the principals and the librarians were selected by using availability sampling technique. A total of 556 respondents were selected from all the sample schools. Questionnaires, interviews, and observation checklists were used as data collecting instruments. The data collected through questionnaires were analyzed by using percentage whereas data collected through interview and observations were analyzed in words. The finding revealed that the availability of basic instructional materials such as models, diagrams, charts, pictures, atlas, maps and science kits were rarely available. The finding also showed that the most available instructional materials were text books, and plasma television. In relation to the utilization of the rarely available instructional materials, the study showed that they were under utilized. The less availability and the under utilization of instructional materials would affect the teaching learning process. Finally, to solve these problems there is need for all stake holders including the regional states and the local governments and the private sectors to contribute financially and materially in the provision of instructional materials. School heads, principals and officials of the ministry of education should ensure regular supervision to enhance effective use of instructional materials in teaching different subjects.

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Acronyms

ETP- Education and Training policy

MOE – Ministry of Education

OEB - Oromia Education Bureau

UNESCO- United Nation Educational, Scientific and cultural Organization

UNICEF- United Nation International Children Education Fund.

Chapter one

1 Introduction

1.1 Background of the Study

Education is the basic tool for the development of any country. Educational organizations are responsible to produce capable individuals who are able to be involved in various development activities taking place in a country. To realize the educational goals, of a country, it is obligatory to render quality education to citizens. There are in fact, various factors that are related to quality of education. Among these factors, the availability and utilization of instructional materials is one. (OEB 2005).Therefore, it is very important to have instructional materials in schools and utilize them properly to produce skillful man power that the country demands for its development.

As explained by Ahmed (1993), instructional materials relate to all forms of materials with which students and teachers interact for the Purpose of teaching and learning. Instructional materials come in several forms and provide students with variety of learning experiences that can introduce, explain, reinforce and review concepts presented.

Teachers like Doctors and other skilled personnel workers need essentials tools to do their work best (Brown, 1985), such materials could be manufactured in different forms or improvised from locally available materials. They could be imported or manufactured, printed and duplicated materials, non projected display materials, still projected display materials, audio visual materials, linked audio and still visual materials, computer mediated materials, electronic materials and electronic media .

As noted by Oromia Education Bureau (2012), teachers should realize that if there are no enough manufactured instructional materials in their schools, they should produce them from locally available resources. Different charts, maps, models and others can be improvised in

school pedagogical centers by both students and teachers. If both teachers and students produce instructional materials from locally available resources the instructional materials would become available in schools to certain extent.

Instructional Materials could also be physical learning environments or other places in which formal learning occurs, ranging from relatively modern and well equipped building to open air gathering places (UNISCO :2005). Therefore, instructional materials include facilities such as class rooms, study rooms, playing grounds, water and electricity.

Instructional Materials have a great roll in the achievement of instructional objectives. This implies that the availability and utilization of instructional materials has a significant impact on students all rounded personality development. According to OEB (2005) in the provision of quality education the roll Played by instructional materials is extra ordinary. They enable to minimize the traditional teacher centered (lecture) method of teaching learning which is dominated by the talk and chalk.

There are different methods of teaching learning processes that involve active learning through the utilization of instructional materials. In-group work, students are grouped or put in to different groups and prepare together instructional materials for immediate utilization in the teaching learning process .In project method, the students are informed to prepare instructional materials at home in groups or alone. This will help the student to clearly understand the lesson they are dealing with.

Instructional materials are required for effective teaching of subjects and to realize various objectives of teaching and learning process. In line with this (UNESCO, 2005) document indicated the usefulness of instructional materials in the teaching learning process as the facilitator of the learning of abstract concepts and help to broaden students' knowledge, increase their level of understanding, stimulate and motivate learners as well as discourage rote learning.

No one disputes the role and function of instructional materials in enhancing quality of education. A student centered approach which is gaining importance is unimaginable without the optimum use of Instructional materials (Amahare 1998). When student use instructional materials during teaching learning process they easily understand what they are learning. Instructional materials assist in making relationship between the real World and symbolic World, what is pedagogically known as understanding.

Instructional materials are also known in compelling and retaining students attention (Heinich, etal, 1996). They add variety to the learning process including greater attention and understanding (Brown, 1985). Aggerwal (1996) also stated that instructional materials provide significant gain in information learning. Retention and recalling, thinking and reasoning activities, interest, imagination, better assimilation and personal growth.

Proper application of teaching materials, along with the other instructional elements, is indicated to be the means through which teachers appeal to learners understanding and active participation (Reinhartz, 1977). Moreover, the availability and utilization of instructional materials are very useful to: facilitate active learning; relate theory with practice; encourage relative thinking, effect students skill development, concretize obstruct experience, create the access to invisible realities and make learning more functional by increasing efficiency (Amahare, 1999).

1.2. Statement of the Problem.

One of the burning issues in our country is the provision of quality education for citizens. If a country is able to provide quality education for citizens, it is able to produce capable individuals who have the ability to realize the development strategies of the country (MOE, 2005). Different researches that have been conducted on the importance of the availability and utilization of instructional materials in schools indicate that instructional materials play a detrimental role in improving students' achievement.

The educational document of Ethiopia ETP (2002) States that school should have different kinds of instructional materials that are utilized during the teaching learning process.

According to standard set by Oromia education bureau (OEB, 2012); instructional materials that should be available in schools include: standardized class rooms that can accommodate 40students, each student should get one book from each subject, each class room should have enough desks for students and chairs and tables for teachers, each class should have chalk board or white board, notice board, Plasma television etc. Laboratory that is composed of biology, chemistry, and physics lab rooms that contain different kinds of instructional materials, Mathematics section containing different instructional materials, pedagogical center with different kinds of improvised instructional materials, library that contains different reference books, atlas, different pictures, charts, globs, maps etc. And ICT center that at least contains 40 computers per 1500 students. Farther more, the educational and training policy of Ethiopia (ETP, 1994) states attention should be given to the supply, distribution, utilization of instructional materials, educational technology and facilities in order to promote, the quality, relevance and expansion of education. However, there are problems of attaining the required level in the provision of quality education in the selected schools of West Wollega Zone. Although there are other factors that could affect quality of education, the researcher focused on the assessment of the availability and utilization of instructional materials in the selected schools of West Wollega Zone.

Thus, the research will attempt to answer the following basic questions:

1. How adequate are available instructional materials in secondary schools of West Wollega Zone
2. How often do teachers utilize instructional materials?
3. How often do teachers and student produce instructional materials?
4. What factors do affect the availability and utilization of instructional materials?

1.3.1 General Objective

The general objective of study is related to assessment of the availability and utilization of instructional materials in the selected general secondary schools of West Wollega Zone and indicates possible solutions that could solve the existing problems.

1.3.2 *Specific Objectives*

1.3.2 1. To find out the extent to which instructional materials are available in the selected secondary schools of West Wollega Zone.

1.3.2. 2 To investigate whether teachers use instructional materials during teaching Learning process.

1.3.2. 3. To examine the degree to which teachers and students prepare instructional materials.

1.3.2 4. To identify the major factors that affects the availability and utilization of instructional materials.

1.4. Significance of the Study

It might provide suggestion to responsible bodies such as directors, teacher, school pedagogical center coordinators and educational officials to find out remedies for the problems that are associated with the availability and utilization of instructional materials.

The study may also serve as source of knowledge for those who conduct similar studies on the same topic in the future.

The primary beneficiaries would be benefited from the result of the study.

1.5. Delimitation of the Study.

The study was delimited to 8 selected general secondary schools of West Wollega Zone in relation to the assessment of availability and utilization of instructional materials. It included all the school principals, and librarians, students and teachers.drown as samples

from the selected general secondary schools with regard to the availability and utilization of instructional materials.

1.6 Limitation of the study

- The respondents reluctance to provide the required information because of confidentiality
- Lack of adequate resource.

1.7. Operational Definitions

Attitude – The Willingness of the teachers and students towards the production of instructional materials

Efficiency – the optimum relation ship between input and output.

Electronic media – is an instructional material that includes Plasma, television, computers, and electronic slides.

Improvised materials- Instructional materials that are locally produced by students and teachers from materials available in the environment.

Instructional materials - refers to all forms of materials which students and teachers use for the purpose of teaching and learning.

Pedagogical center is the center in the school where the teachers and students prepare instructional materials.

Quality – is the level of performance in input and performance.

Standard – The criteria or requirements that are considered appropriate to achieve a given goal.

1.8. Organization of the Study

The study is organized in to five chapters. The first chapter is concerned with the introduction of the study. The second chapter deals with review of related literature, the third chapter was concerned with the research design and methodology, chapter four deals with data presentation, analysis and interpretation and chapter five deals with summary, conclusion and recommendation

2. Review of the Related Literature

This part contains various literatures, which have a relationship with the topic under investigation. The content of the chapter is arranged in such away that the meaning of instructional materials comes first, followed by types of instructional materials. Then comes discussion on importance of instructional materials, preparation of instructional materials, utilization of instructional materials and factors affecting the availability and utilization of instructional materials.

2.1. Meaning of Instructional materials.

There is no one or single definition for instructional materials. Many educators have tried to define the term instructional materials in different ways. However, educators now often refer to it educational communication technology, audiovisual media, learning resources, instructional media or new educational media to describe the field.

In reference to this, Schramm, (1977) says that instructional materials are nothing but are the media of communication used for teaching and learning. Amare (1999), asserts that instructional materials relate to all forms of materials with which students and teachers interact for the purpose of learning and teaching. Amare (1999) further points out that instructional material are the instruments with which a teacher teaches and from which students' learn. He went on to say that teaching with out instructional materials boils down to teaching with out technology. According to Amare (1999), these materials can be models, specimens, simulators, objects involving those that allow imaginative involvement of learners with a minimum effort or sensory involvement (learning with written or spoken words).

Instructional materials are not in support of instruction, but are the instructional input by themselves. Romiszowski cited in Nkuuhe (1995) considered materials such as slides, Photographs, teachers-made diagrams, charts, real objects, handouts and text books that we used in the process of planned instruction as instructional materials. Aggrawal (2001) tried

to define instructional materials as device that assist instructor to clarify, establish and co-relate concepts, to transmit to learner facts, skills, attitude, knowledge and appreciation and enable him /her to make learning more concrete, interesting and vivid.

2.2. Types of Instructional Materials

Many scholars have tried to classify instructional materials in to different types. Among these, Aggrawal (1996) classified instructional materials in to three groups. These are Audio, visual and, Audio-visual materials. Audio aids include radio and tape record. Visual aids include charts, models and pictures.

Audio- Visual materials encompass both optical aids and television. In this category those teaching materials which involve the use of two of our senses i.e. Hearing and seeing are included. By the same taken Aggrawal, (2001), provides the classification of instructional materials in the following manner:

Projected Materials	Non projected materials				
	Graphic aids	Display Boards	3-Diamentional materials	Audio Aids	Activity aids
Films	- cartoons	Blackboard	Diagrams	- Radio	-Computer Assisted instruction
Filmstrips	-charts	Bulletin board	- Models	- Recordings	
Opaque Projectors	Comics	Flannel board	Mockups	Television	- Demonstrations
	Diagrams		-Objects		- Dramatics
Overhead Projectors	Flash cards	Magnetic board	- Puppets		- experimentation
	Graphs	Peg board	-specimens		- Fieldtrips
slides	Maps				- programmed instruction
	Photographs				- Teaching machines
	Pictures				
	Posters				

Source Agrawal, I.C (2001).

manner:

Audio materials	Visual materials	Audiovisual materials
Language Laboratories Radio Sound distribution system sets Tape and disk Recordings	Bulletin boards Chalk boards Charts Drawings Exhibits Filmstrips Flash cards Flannel boards Flipcharts Illustrated books Magnetic boards Maps Models Pictures Posters Photographs Silent Films.	-Demonstrations - Films - Printed materials with - recorded Sound -sound filmstrip - Television - Video tape

Farther more, Heniich et.al (1996) grouped instructional media in the following way: none printed media – such as photograph, diagrams, displays and models, Project media such as slides, filmstrips, overhead transparencies and computer projection, Audio media – such as cassettes and compact discs, Motion Media – such as video and film, Computer -mediated instruction, Computer –based multi media and hypermedia and, Media – such as radio and televisions used for distance learning. Ahmed (1993) described audiovisual materials as pictures, charts, models, maps, diagrams, filmstrips, televisions, tape records, radio and motion pictures.

Another type of instructional materials, that of written description includes scientific, scholarly, reference, and methodological teaching materials, as well as textbooks, books of problems and exercise, books for recording scientific observation, laboratory manuals, manuals for production training, and programmed text books.

Instructional materials also include technological instructional media. Among these are equipment for the transmission and assimilation of information recorded on film or on phonograph recordings: film projectors, tape recordings, phonographs, and television sets. Monitoring devices include punched curds and various types of automatic apparatus. Teaching machines include language laboratory machines, closed-circuit television systems, and computers.

In general, the deferent types of instructional materials obviously involve deferent sense by presenting stimuli. Thus, teachers can use the materials which have relation to the educational objectives, contents and learners characteristics. This enables them achieve the intended educational objectives and effective teaching learning process.

2.3. The Importance of Instructional Materials for Teaching - Learning process

Instructional materials are very important in teaching and learning process; because they serve as an aid for instruction. By using instructional materials, the teachers will be able to make his/ her strategies in teaching more effective and meaningful, and the students will be able to understand and easily absorb the lessons. In line with this Amare (1999) indicated that "instructional materials provide the leaner with a wide variety of experiences. For instance listening, reading and drawing. Among these, listening skills can be achieved by employing audio materials.

Sharma (2005) states that visual materials can increase the active participation of students by copying of notes (which is relevant to lesson in spelling, writing or drawing),by asking questions on the visual content and getting students to explain the function of part of the materials. Among visuals, concrete real objects (eg. coins, tools, plants and animals) are helpful for learners who have little direct experiences in their daily lives (Muijs and Reynolds, 2001).

Instructional materials serve as the channel between the teacher and the students in delivering the instruction .They may also serve as the motivation on the teaching learning process. They are used to get the attention of the students in order for them to experience boredom. In line with Allen (1995) and Sharma (2005) using television in the teaching learning process, students can learn about current events, scientific advances, be exposed to dramatic and musical performance etc. Similarly, Pollard (2002) pointed out that video recording is particularly helpful in providing contextual information in classroom and capturing non verbal behavior as well as speech.

Erickson further notes that one of the salient features of instructional materials is that they make possible a broader range of sensory stimuli. Hence they provide a more direct form of experience to facilitate hearing, seeing, doing and trying.

To substantiate this notion, Aggrawal (2001), states the following popular sayings on the need and importance of instructional materials as: I hear, I forget, I see, I remember, and I do, I understanding. This implies that, if students learn practically by seeing and doing the can easily remember and understand lessons

Instructional materials which are educational inputs are of vital importance to the teaching of any subject in the school curriculum. The use of instructional materials would make discovered facts glued firmly to the memory of students. A well planned and imaginative use of visual aids in lesson should do much to banish apathy, supplement in adequacy of books as well as arouse students interest by giving them something practical to see and do, and at the same time helping to train them to think things out themselves.

Audio- visual materials, as integral part of teaching learning situations help to bring about permanent and meaningful experience. They provide first- hand experience where possible or of vicarious one where only that is feasible.

Aggrawal (2001), also enumerates five main reasons to underscore and justify the use of instructional materials for better teaching and learning in the following manner:

I. To teach something thoroughly so that the children may retain the subject mater taught.

II. To teach something more quickly. This will result in covering more ground in a given time, and thus gives a better chance of " getting through the syllabus''.

III. As a means of creating or sustaining interests.

IV. As a means of integrating a number of separate pieces or work already learned by other means.

V. As a means of bringing with the experience and understanding of learners something which is new to them. This often includes the presentation to learners, in a simplified from, of maters which can be appreciated fully only by adults.

In order to emphasize the roles of educational technology, Reinhartz (1997), categorized technology in to non interactive and interactive technology. None interactive technology according to him includes tape records, sixteen millimeter film projectors, opaque projectors, filmstrips projectors, video cassette records (VCRs), and television.

According to Reinhartz, information presented on non interactive technology can not be changed by the viewer, it can be turned on or off, and stopped at appropriate points, but the viewer cannot respond to the media interactively. That is to say, more often than not, the learner is an observer, not a participant. As pointed out by Reinhartz (1997), non interactive technology is frequently used to do the following: introduce a topic or skill, open a lesson and / or unit, motivate students , practice a concept or skill, stimulate discussion, provide back ground information, close a lesson with a review.

As regards interactive technology, Reinhartz (1997) says that using this type of technology allows the learner to manipulate the technology for specific learning goals/ purpose.
Interactive technology comprises computers, laser discs, compact disk players, models and video discs. Concerning interactive technology, Reinhartz asserts that this type of technology is often used by the teacher to discharge the following tasks: answer questions, record information, add possible out comes to a situation, experiment, or story, solve problems, plan and implement strategy, and design models.

Dale (1969), cited in Amare (1999), lists the pedagogical use of instructional materials as follows: facilitating active learning, encouraging creative thinking, effecting students skill development, overcoming the limitation of time and space , concretizing abstract experiences, creating access to invisible realities, teaching and entertaining, relating theory with practice, making learning more functional by increasing retention, assisting learning of a method of learning in the field and encouraging responsibility.

Erickson (1972), argues that instructional materials may perform some super human tasks for the teacher there by providing a comprehensive listing of the roles of instructional materials in the teaching learning process as indicated below: they provide the teacher with a means for extending his students horizon of experience, they help the teacher provide his students with meaningful sources of information, they provide teacher with interest- compelling springboards which can launch students in to a wide variety of learning activities, they multiply teacher's efficiency by providing tutorial stimuli and response guidance for individual students and small groups, they help the teacher over come physical difficulties of presenting subject mater, they offer rich opportunities for the students to develop communication skills while actively engaged in solving meaningful problems, they provide the teacher with tools to carryout diagnostic testing research, and remedial work.

Aduwa-Ogiebaen and Imogie (2005), state that instructional materials offer a variety of learning experiences individually or in combination to meet different learning-teaching experiences. Sharma (2005) using language laboratories can greatly increase both the quality and quantity of students aural-oral experience, it reduces out side destruction and hence increase concentration, it enables them to practice individually and work at their own pace and they can record and play back their own response.

To sum up, instructional materials are very essential in accommodating theory with practice, and they also play a vital role in imparting and receiving the necessary information in the teaching learning process. Furthermore, instructional materials clarify abstract concepts to

communicate verbally; illustrate and simplify information that are difficult to understand (Betsate, 2000).

2.4. Availability of instructional materials

The availability of instructional materials is very important issue to create effective learning situation. Regarding this, Ahmad (1993) described that instructional materials are the school resource inputs that are used in the class room to facilitate the teaching learning process. Teachers should get enough amounts of instructional materials that would be utilized during the teaching learning process. However, the instructional materials provided to the class room are substandard in quality and less in quantity in developing countries.

Henich et-al (1996) states that the majority of instructional materials used by teachers are ready made and available from the school or district education office. They state that teachers have at least three ways in obtaining instructional materials. First, they use materials that are readily available in the school pedagogical center; similarly, teachers and students can have access to the local community resources by organizing field trips or by inviting resource persons to the classroom to share their experiences. Secondly, when the materials obtained are only partly relevant to the subject of study, then they can be modified or adapted by the teachers to go with their specific objectivities. The third alternative may be producing one's own instructional materials.

This can be done by teachers and students. According to Amare (1999) most instructional materials needed can be prepared by teachers, students and pedagogical resources coordinators. In addition to this, Henich et.al (1996) pointed out a media resources centers are housing a wide variety of up-to date – materials relaying on an array of media format allows immediate access to additional in depth information. The phrase '' a wide variety of media'' indicates that the availability of instructional materials for all subjects and grade levels is an important issue for the effective teaching learning process.

According to the standard set by Oromia Education Bureau (OEB, 2012), the following instructional materials should be available in general secondary schools: a classroom that accommodates 40 students with a standardized width and length which contains 20 desks.

with in each class room there should be a chair and a table for the teacher, a black board, a notice board a plasma television etc. Each student should have a copy of text book from each subject. Library that contains different sections where teacher and students separately use the sections as a reading rooms. In the library there should be different reference books for each subject, atlas, different drawings, charts, maps, slide film, tape recorder, cultural instructional materials, and other important instructional materials should be available. Laboratory that is composed of Biology lab, chemistry lab and physics lab, were each of the laboratory filled up with different instructional materials such as microscopes, slides, models, chemicals, etc... that play role in teaching learning process, There should also exist different kinds of instructional materials that should be used for mathematics, and social studies teaching. An ICT center that can accommodate 40 students at a time should also be available. Each student should use one computer during the study and a pedagogical center that is filled with different instructional materials.

Several literatures and research findings reveal that availability of instructional materials has influenced the quality of education in general and teachers effectiveness in particular. For instance, Amare (1999) and MOE (2002) described that availability of instructional materials determines the quality of education and teachers effectiveness.

The availability of text books, appropriate chalk board, math's kit, science kit teaching guide, science guide, audiovisual aids (overhead projectors, maps, models and charts),are the important instructional materials. However, there is a shortage of instructional materials in developing countries.

Chapman and Mahlak (1997), made the significant discovery that inadequacy of instructional materials negatively affects the teaching –learning process and quality of education in developing countries.

Some of the research undertakings in Ethiopia indicate that most of the school pedagogical centers had not sufficient instructional materials. Amare (1998) reported that the most critical educational problems in Ethiopian schools was in availability of instructional materials followed by crowdedness of class rooms.

In general, from what has been stated above one can see that the availability of instructional materials in schools are very important for rendering quality education and if, there are no ample instructional materials in schools the quality of education will be highly affected.

2.5. Preparation of Instructional Materials

Different literatures as well as researches conducted on the importance of instructional materials indicate that, if there are no enough manufactured instructional materials in schools, the school itself should produce them from locally available resource by students, teachers and pedagogical center coordinators,(OEB,2013).

Teachers prepare instructional materials when they cannot get teaching materials available in their schools, or when the available materials are not adequate for instructional purpose they need. According to Aggrawal (1996) the teachers themselves should prepare some of the instructional materials from locally available resources.

Instructional materials can also be prepared by students at home or in pedagogical centers from locally available resources. They can also have an access to local resources by organizing fieldtrips or inviting a resource person that could share his experience for them. As Amare (1999), most instructional materials need to be prepared by teachers, students and media personnel. Brown (1985), greatly stressed the importance of local media production to meet special needs and such production activities are especially beneficial as learning experiences for students. One might not always get available instructional materials in schools. Thus, a need to prepare instructional materials that go with the objectives of the instruction arises. Thus, certain instructional materials can be improvised from locally available resources by both teachers and students in school pedagogical center.

2.6. Utilization of Instructional Materials.

When instructional materials are used by both teachers and students during the teaching learning process, they help in achieving the instructional objectives. Dale (1969), pointed out that the critical and systematic utilization of instructional materials in the teaching learning process play a great role and enables teachers to attain the ultimate goal of

education, the development of the independent learner who needs less and less assistance from the teacher.

These indicate that the proper use of instructional materials gives freedom to learners in their learning and help them not to expect every thing from their teacher. Heinich, et.al (1996) stated that the increased availability of media and philosophical shift from teacher centered to student centered learning increases the likely hood that students will be using the materials them selves as individuals or in a small group rather than watching their teacher's presentation.

According to Umunadi, (2009) "…. teacher utilization of relevant equipment, materials and tools in teaching learning enhances students' achievement''. Aggrawal (1996), emphasized the importance of the proper utilization of instructional materials as: reduce verbalism, forms clear image, a great freedom for students to move about, talk, laugh, and comment up on and enable the teacher to follow the maximums of teaching like ''concrete to obstruct; known to unknown and learning by doing".

To overcome the shortage of materials the scares resources should be properly utilized. The education and training policy and its implementation MOE (2005) states that in order to ensure quality of education, students should have text books in sufficient quantity, have adequate work shop and laboratory equipment especially in secondary schools, and the proper utilization of available materials should be given a great emphasis.

The effective and efficient utilization of instructional materials helps the students to acquire a knowledge that brings a behavioral change. To achieve this, the school leadership should create a suitable environment for proper utilization of instructional materials. In line with this, UNESCO (1994) pointed out that the instructional materials such as text books, maps, globes, laboratory equipments and other facilities are the critical resources in school and their proper utilization should be given due attention by principals and other non- teaching stuff.

Utilization of media in teaching is one of the tasks expected from all teachers. The teacher has to use instructional materials to make the teaching learning process interesting (Nicholls, 2000). According to challahan and Clark (1988), a utilization of instructional materials involves four types of skills: selection of the right material, preparing for use, using skillfully and following up utilization.

Aggrawal (1996) lists four different principles in the utilization of instructional materials.

1. ***Principles of selection***– instructional materials prove effective only when they suit the teaching objectives and unique characteristics of the special group of learners. They should suit the age level, grade level and other characteristics of the learner, they should have specific educational value besides being interesting and motivating, they should be the true representatives of the real thing and they should help in the realization of desired learning objectives

2 ***Principles of preparation***- as far as possible locally available materials should be used in the preparation of instructional materials. The teachers should receive some training for the preparation of instructional materials and students may be associated with the preparation of instructional materials with those which have experience in the preparation of instructional materials.

3. ***Principle of proper presentation***– teachers should carefully visualize the use of instructional materials be for their actual presentation. They should fully acquaint themselves with the use and manipulation of the materials to be shown in the class room and the materials should be displayed properly so that all of the students are able to see it.

4. ***Principles of response***- the teacher guides the students to respond actively to the audio-visual stimuli so that they drive the maximum benefit in learning.

However, on the contrary inappropriate utilization of instructional materials can do more harms than good to the teaching- learning process (Betsate, 2000).He added that in appropriate utilization could take any of these forms: under use, abuse or misuse of media. These will eventually limit students learning.

In general, the proper utilization of in instructional materials gives different advantages in the teaching learning process; it creates effective learning situation, it clarifies what had been taught theoretically, decreases dependence of learners on their teachers and provide learners freedom in their learning, provides concrete and meaningful learning experiences by involving all senses of the learners and enables both teachers and students achieve educational goal and objectives.

2.7. Factors Affecting the Availability and Utilization of Instructional Materials.

The availability and utilization of instructional materials can be affected by many factors. Some of them are: teachers commitment and self initiation in preparing and using instructional materials training status of school pedagogical center coordinators and the role of school principals and other concerned bodies at the school provide the necessary support to encourage teachers and pedagogical center coordinators for the provision of financial and materials support (Berhanne,1999)

2.7.1. Teachers' Commitment and self Initiation in Preparing and using Instructional Materials.

One of the duties of teachers is preparing and using instructional materials to attain the goal of education. In this case, the effective behavior of teachers is that a teacher stimulates students with interesting and original materials and techniques (Amare, 1999). They capture and sustain the interest of their students by using different instructional materials and instructional techniques. Heinich et.al (1996) stated that sometimes teachers can tolerate the problems of lack of instructional materials by preparing the intended instructional materials from locally available resources and using them.

There are a variety of instructional materials, which the teacher can readily use to enrich learning. Clark and Starr (1996) pointed out that to initiate teachers and students, boundless instructional materials should be available. Thus, a committed teacher is responsible to prepare and use instructional materials to improve the quality of the teaching learning process.

Aggrawal (2001) suggested that a good teacher will create his own materials and make learning a creative experience for his students. The scholar also pointed out that using the existing instructional materials can facilitate the creation of instructional unit; however, if no appropriate materials exist, then the teacher must create the materials. The human factors could be the teacher's professional commitment, creativity, mechanical skills, initiative and resourcefulness.

The above ideas indicate that professional commitment and self-initiation include the preparation and use of instructional materials that enhance an active learning method.
Therefore, both commitment and self-initiation to the preparation and utilization of instructional materials is important precondition for effective teaching, learning process.

2.7.2. Training status of school Pedagogical Center Coordinators

It leaves no one in doubt that assigning trained pedagogical center- coordinators makes utilization of instructional materials effective and manageable. To this point, Ellis, et.al (in Birhane, 1999) has strictly underlined the fact that a school pedagogical center requires a trained person who is equipped with pertinent knowledge and skills in educational technology in general and visual instructional materials in particular.

To perform their functions properly, school pedagogical centers require committed and qualified coordinators. According to Sampath, et.al (1990), the role of school pedagogical coordinators includes: preparing and preserving instructional materials, helping teachers in previewing, preparing and using instructional materials, providing facilities and materials, organizing all materials, collecting instructional materials by borrowing from different sources, providing professional service throughout the day and developing awareness of new and up – to- date instructional materials etc.

Erickson (1968) enumerates the duties responsibilities of audio –visual media coordinators or schools pedagogical centers` heads as follows: to assist teachers in the wise selection, utilization, evaluating and developing materials of instruction with special attention to newer

media of communication, to work with teachers to improve utilization in the instructional program and give orientation to students regarding instructional materials, to arrange and give in- serves workshops and training in different aspects of instructional technology, to keep an inventory of community resources, to be responsible for the case and maintenance audio visual equipment, compile teachers` follow up sheet on monthly orders, for audio-visual materials and for ward them to the instructional materials, assesses the problem of teachers on instructional materials, work closely with and advise the school principal on all phases of audio-visual program and arrange working hour's for teachers and students, prepare necessary instructional materials ordered by teachers and to organize a good stock of audio-visual equipment and materials and maintain them in good condition.

As we have seen from the above points, assigning trained coordinators in pedagogical center makes instructional materials effective and manageable. But lack of trained man power affects the availability and utilizations of instructional materials. In different schools there are shortages of trained school pedagogical center - coordinators. In line with these, Berhane (1999) confirmed that there was shortage of qualified persons in school pedagogical center.

To sum up, the pedagogical center requires well trained person who can run them effectively. Hence, the importance of pre-service and in service training for school pedagogical center coordinators is vital.

2.7.3. The Role of Schools Principals and other Concerned Bodies

Leadership is one of the most important factors affecting the availability and utilization of instructional materials. Some of the responsibilities of a principal are dealing with the academic and the administrative affairs in the school. A principal has a very important role to fulfill the necessary materials regarding school pedagogical centers in their daily job duties and responsibilities. Principal are more responsible for the improvement of the teaching – learning process in their school.

In particular, their duty to monitor instruction increases along with their responsibility to help teachers improve their teaching. The school principals make available to teachers main materials that are in libraries, school pedagogical centered and laboratory. It is the school administrator's responsibility to facilitate the necessary materials, which would be used in

teaching – learning process. A teacher alone can never do any thing, without being provided with the necessary materials (Educator's Encyclopedia, in smith, 1961).The principal, who allocates enough budgets, support and supervise the utilization of instructional materials by teachers, assesses the problems of teachers in preparing and using of instructional materials.

These ideas indicate the professional commitment and positive attitude needed from principals to wards supporting teachers and school pedagogical center - coordinators.
UNESCO (1984:) pointed out the instructional materials such as text book, maps, globes, laboratory equipments and other facilities are the critical resource in school and their proper utilization should be given due attention by principal and other non- teaching staff to its management.

2.7.4 Provision of Financial and Material Support

Instructional materials require financial and material support. This means, the instructional materials that will be produced at the school level needed certain amount of budget allocation. According to Amare (1998), "teaching without instructional materials is tantamount to farming with the use of fingernails". Just like any activity, the teaching – learning process needs the use of appropriate technology.
However, we observe failure to apply in most schools. One of the sources of this problem is limitation of budget.

Thus, it is unquestionable that financial provision for the purchase of instructional materials has vital importance. To this end, school, should look for sources of budget both from government and non- government agencies. Besides, the school community should also device an in- built income generating activities for such purpose. In this regard, Brown (1977) states that "Financial and material support can be obtained from government and non-government organizations, parents, resources persons and the community as a whole".

Furthermore, research findings have shown that less amount of budget is allocated for educational materials and equipment. For instance, Amare (1996) in his survey study in some selected schools of Addis Ababa indicated that the schools did not have their own budget

allocation for the purpose of pedagogical centers or instructional materials. Similarly, research undertakings which were conducted. Berhane (1999) has come up with a conclusion that the schools did not have enough budgets.

From the above discussion one can conclude that financial and material supports play a great role in preparing and using instructional materials.

However, different schools did not have enough budget allocation. This implies that less availability and deficiency in the use of instructional materials, and the effect is less effectiveness of teaching- learning process.

Chapter Three

3. Research Design and Methodology

3.1. Methodology of the Study

The Purpose of this study was to assess the availability and utilization of instructional materials in secondary schools of West Wollega Zone. To realize this objective, a descriptive survey design was employed. The use of descriptive survey was well supported by Best and kahan (2005), "when they said descriptive survey design is appropriate to describe conditions that exist, options that are held, and processes that are going on, trends that are developing and also to assess large sample size". With this in mind, the researcher used descriptive survey to get a description of current status of the availability and utilization of instructional materials in the selected secondary schools of West Wollega Zone. In so doing the researcher used both quantitative and qualitative approaches.

3.2. Source of Data

In this study data were gathered from both primary and secondary sources. Primary data were collected from school directors, subject teachers, students and librarian. Secondary sources of data were based on document analysis. Document such as student book ratio, preparation and utilization list of instructional materials were analyzed.

3.3. Population Size, Sample and Sampling Techniques

In West Wollega Zone, there are 19 woredas and two administrative towns with a total of 32 general secondary schools. For this study, 8 schools namely: Nedjo, Jarso, Babo, Guliso, Wara Jiru, Gori, Kondala and Dilla Gogola secondary schools were selected as samples using simple random sampling technique.

The respondents who participated in the study were 4 groups. These were school directors, teachers, students, and librarians. The total numbers of respondents included in the study were 78 teachers, 462 students, 8 school directors, and 8 librarians. Totally 556 respondents had participated in this study. In order to select samples from the target population, the

researcher used simple random sampling technique for both teachers and students. Accordingly 23% of teachers were taken from each sample school and 3% of the students were sampled from each school. That is, first the number of teachers to be selected from each school was decided (calculated) proportionally based on the total number of teachers in each school. Then, the sample teachers were selected from each school using simple random sampling technique. The same procedure was followed to select students. School principals, laboratory technicians and librarians were included in the study based on availability sampling because they were few numbers.

Table 1: Sample schools, Population size and Sample size

School	Teachers		Students	
	Population	Sample (23%)	Population	Sample (3%)
Najo	88	20	4431	133
Jarso	48	10	1980	60
Babo	48	10	1996	60
Warajiru	32	8	1217	37
Guliso	50	12	2055	61
Gori	28	6	1262	37
Kondala	38	9	1612	48
Dilla Gogola	13	3	835	26
Total	343	78	15388	462

3.4 Data Collecting Instruments

To secure reliable and adequate information, selection of appropriate data collection instruments is essential. Therefore, this study mainly employed questionnaires, interviews and observation checklists. The instruments were developed based on literature review and the basic question.

3.4.1 Questionnaires.

A questionnaire is an enquiry form of data gathering instrument which respondents answer to the questions provided, or respond to statements in writing and used to get factual information. (Best and Kahan: 2005). Hence the researcher used open and closed questionnaires for similar cases. This study used questionnaires for students and teachers. Questionnaires for teacher consisted of open and close ended items regarding demographic background, the availability of instructional materials, utilization of instructional materials, importance of instructional materials, support and encouragement given by school administration and factors that influenced the availability, preparation and utilization of instructional materials.

A questionnaire for students consists of open and closed ended items concerned with availability, preparation and utilization of instructional materials. Moreover, the importance of instructional materials was also included in the questionnaires.

Students questionnaires were prepared first in English and translated in to Afan Oromo language in order to make the ideas clear and to avoid some possible misunderstandings.

3.4.2 Interview

Interview is important for finding out what is in some one else mind (Best and Khan, 2005) Gubrium and Holstein (2001) also stated that interview is useful instrument to generate often important and crucial information. In line with this, structured interviews were conducted with school principals and librarians. Interviews were made to focus on the availability and utilization of instructional materials, teachers commitment in the preparation of instructional materials, financial and material support given by woredas, zone ,and bureau of educational office and other none governmental organizations.

Teachers and students use of library and the availability of different reference books in the library were also included in the checking

3.4.3 Observation Checklist

In this study, observation was also used. In order to record information gathered through observation, a checklist was employed. Borrowing lists, availability and utilization of library and laboratory were included in the checklist.

3.5 Methods of Data Analysis

As far as data analysis was concerned, both quantitative and qualitative approaches were employed. The data collected through questionnaires were presented in table and analyzed using percentage, while qualitative data obtained through interview and observation checklist were presented and analyzed in words.

3.6. Pilot Test

In order to check the validity of the data collecting instruments, a pilot test was conducted in one none sample secondary school. The data collecting instruments were distributed to 35 students and 15 teachers. The responses obtained from the respondents indicated that most of the questionnaires were free from vague and permit appropriate interpretation of scores. Few of the open ended questionnaires that were two general were modified so that specific responses could be given. On the other hand to check the reliability of the data collecting instruments a Cronbach alpha reliability was used and when the data collected were analyzed the coefficient was found to be 0.75. This indicated that the data collecting instrument were reliable.

Chapter Four

4. Presentation Analysis and Interpretation of Data

As indicated in the previous chapters, the objective of this study was to investigate the availability and utilization of instructional materials in secondary schools of West Wollega zone. Therefore, this chapter deals with the analysis and interpretation of the data collected from the selected schools through questionnaire, interview and observations. The data collected through closed- ended questions from teachers, and students were presented in tables and analyzed using percentage. The qualitative data obtained through interview and observation were presented in summarized form and analyzed in descriptive form together with the quantitative analyses of related questionnaire items.

4.1 Background and Characteristics of Respondents

By describing the characteristics of the respondents, it is possible to know some background information about the sample population who participated in the study. Thus, the sex, age, qualification and of the respondents are presented in the following tables:

Table 2: Basic demographic information about teachers and school directors

Variable	Item	Respondents			
		Teachers N=78		Directors N=8	
		N	%	N	%
Gender	a. Male	54	69.2	8	100
	b. Female	24	30.76	-	-
	Total	78	99.96	8	100
Qualification	a.12+1	-	-	-	-
	b. Diploma	6	7.69	-	-
	c.BA/BSC	72	92.3	8	100
	d.MA/MSC	-	-	-	-
			-	-	-
Total		78	99.9	8	100
Age	20-29	50	64.10	8	100
	30-39	17	21.79	-	-
	40-49	10	12.8	-	-
	Over 49	1	1.2	-	-
Total		78	99.89	8	100

As can be seen from table 2 in relation to the gender of the teachers, 54 (69.2 %) of them were` males. This indicates that majority of the teachers teaching in thee selected secondary schools of West Wollega Zone are males.

All the school directors 8 (100%) are males. Looking at the age structure, 50 (64.10%) of the teachers were in the age category of 20-30 years, 17(21.79%) of the teachers were between 30-39 years old. Ten (12.8%) of the teachers were between 40-49 years old. Only one teacher was above 49 years old. This shows that majority of the teachers were mature enough to give a reliable information. The age of all the school directors in the selected secondary school was between 20-29 years old which indicates that they were matured enough to respond to the questions properly.

As to educational back ground of the respondents, 72 (92.3 %) and 6 (7.69%) of the teachers were 1st degree and diploma holders respectively. As it is evident from table 1, all the school directors possess a first degree qualification.

Experience wise, table 1 indicates that 45 (57.6%), 15 (19.2%) and 13 (16.6%) of the teachers served for 1-5 years, 6-10 and 11-15years, respectively. Only one teacher served for over 20 years.

From the table one can understand that majority of the teachers were experienced and as the result could provide reliable information about the issue under investigation.

Table 3:The student Respondents' back ground

Variable	Item	Respondents students	
		No	%
Gender	a. Male	231	50
	b. Female	231	50
	Total	462	100
Age	a. 15-18	350	75.75
	b. 19-22	80	17.31
	c. 22-26	32	6.92
	d. 26 and above	-	-
	Total	-	99.98
Grade	9	255	55
	10	207	45
	Total	462	100

As it could bee seen from table 3, in relation to the gender of the students, 231 50(%) and 231 (50%) of them were males and females respectively. As to the age of the students 350 (75.75) of them were between15-18. This indicates that the majority of the students were in the right school age. The grade level involved in the study were 255 (55%) from grade 9 and 207 (45 %) from grade 10. This helped the researcher to get information from both grade levels.

4.2. *The Availability of Instructional Materials in terms of Quantity.*

Table 4: Level of adequacy of Instructional Materials.

Respondents	Very high		High		Moderate		Low		Very low		Total	
	No	%	No	%	No	%	No	%	No	%	No	%
Teachers	-	-	-	-	13	16.6	50	64.1	15	19.23	78	100
Students	13	2.8	15	3.2	49	10.6	335	72.5	50	10.8	462	100

As shown in table 4, the majority of teachers 50 (64.1%) and students 335 (72.5 %) reported the inadequacy of instructional materials. Furthermore, 15 (19.23%) of teachers and 50 (10.8 %) students responded that the instructional materials were in a "very low" supply. Data that were qualitatively

collected through interviews also confirmed what is shown in table 4. All the school directors and librarians in the sample schools responded that the availability of instruction materials was low.

Most of the school directors indicated that their schools didn't have pedagogical centers where both teachers and students prepare instructional materials. Moreover, the school directors replied that their schools did not have laboratory rooms and necessary laboratory tools and equipments. As a result, the students have no chance to observe demonstrations and perform different activities and this may affect the teaching learning process.

Table 5- 7 Show Possible Supplies Affecting the Availability of Instructional Materials

Table 5

Supply	Respondents	Responses									
		Very high		High		Moderate		Low		Very low	
		No	%	No	%	No	%	No	%	No	%
Papers and ink	Teachers	-	-	2	2.56	15	19.23	53	67.94	8	10.25
	Students	-	-	-	-	-	-	-	-	-	-
Reference book	Teachers	-	-	-	-	23	29.48	50	64.10	5	6.41
	Students	13	2.81	80	17.31	68	14.71	239	51.73	62	13.41
Syllabus and teachers guide	Teachers	13	16.6	58	74.35	5	6.41	2	2.56	-	-
	Students	-	-	-	-	-	-	-	-	-	-
Text books	Teachers	41	52.5	35	44.8	1	1.2	1	1.2	-	-
	Student	203	43.9	233	50.43	14	2.81	13	3.03	-	-

As shown in table 5 above, majority of teachers 53(67.94%) responded that the supply of papers and ink was low. Farther more the majority of the teachers and the students

50 (64. 10%) and 239 (51.73%) replied that the supplies of reference books were low respectively. In relation to syllabus and teachers guide majority of the teachers 58 (74.35%) replied that the supplies syllabus and teachers guide were high. Moreover the majority of the teachers 41 (52.5% reported that the supply of text books was very high. On the other had 233 (50.43%) of the students replied that the supply of text books was high.

Table 6

Supply	Respondents	Responses									
		Very high		High		Moderate		Low		Very low	
		No	%	No	%	No	%	No	%	No	%
Charts	Teachers	2	2.56	14	17.94	18	23	41	52.5	3	3.84
	Students	23	4.9	54	11.68	85	18.39	283	61.25	17	3.67
Models	Teachers	-	-	-	-	-	-	32	41.02	46	58.97
	Students	-	-	14	3.03	113	24.45	301	65.15	32	6.9
Diagrams	Teachers	-	-	13	16.66	14	7.94	49	62.82	2	2.56
	Students	-	-	49	10.60	104	22.5	305	66.01	4	0.86
Globs	Teachers	-	-	-	-	23	29.49	50	64	5	6.41
	Student	-	-	-	-	108	23.37	278	60.17	76	16.45

As can be seen from table 6, the majority of the teachers and the students 41 (52.5%) and 283 (61.25%) reported that the supply of charts was low. In addition the majority of the teachers 46 (58.9%) replied that the supply of models was very low. Moreover, the majority of the students 301 (65.15%) replied that the supply of models was low. Furthermore, the majority of the teachers and students 49 (62.82%) and 305(66.01%) reported that the supply of diagrams was low respectively. Moreover, the majority of the teachers and students 50 (64) and 278 (60.17%) reported that the supply of globs was low respectively.

Table 7

Supply	Respondents	Responses									
		Very high		High		Moderate		Low		Very low	
		No	%	No	%	No	%	No	%	No	%
Science kits	Teachers	-	-	-	-	13	16.66	49	62.8	16	20.5
	Students	8	1.73	31	6.7	140	30.3	283	61.25	-	-
Plasma Tv	Teachers	13	16.6	62	79.48	2	2.56	1	1.2	--	-
	Students	141	30.51	239	51.73	68	14.71	14	3.03	-	-
Computers	Teachers	-	-	-	-	23	29.48	53	67.9	2	2.56
	Students	-	-	13	2.8	212	45.89	233	50.43	4	0.86
Financial supply	Teachers	-	-	-	-	6	7.69	58	74.35	14	17.94
	Student	-	-	-	-	-	-	-	-	-	-

As can be seen from table7, the majority of the teachers and the students 49 (62.82%) and 283 (61.25%) reported that the supply of science kit was low respectively. Further more 53 (67.9%) and 233 (50.43%), replied that the supply of computers was low. Moreover, the majority of the teachers and the students 62 (79.48%) and 239 (51.73%) responded that the supply of plasma Tv was high respectively. Furthermore, the majority of the teachers 58 (74.35%) replied that the supply of financial support from the school was low.

Moreover, the researcher`s observation was in agreement with the responses given by teachers and students. Most of the sample schools do not have pedagogical centers to prepare instructional materials from locally available materials. In addition, most of the schools do not have laboratories and as a result there were no supplies that should have been kept in laboratories for the teaching learning process. Only one school has a laboratory with some instructional materials.

The library observation made by the researcher revealed that most of the libraries do not have a sufficient reference books that corresponds with the number of the students. Generally the above results showed that instructional materials such a since kits, charts, maps, diagrams, pictures, globes are scarcely available. On the other hand instructional materials such as text books and plasma TV are sufficiently available.

4.3. Teachers Utilization of the Available Materials

Table below shows the responses given by teachers and students in relation to the extent of utilization of the available instructional materials.

Table 8: Utilization of available instructional materials by teachers

Respondants	Always used		Frequently used		Some times used		Rarely used		Not used a tall	
	No	%	No	%	No	%	No	%	No	%
Teachers	1	1.28	2	2.56	23	29.4	49	62.8	3	3.8
Students	50	10.8	53	11.47	104	22.5	247	53.4	8	1.7

Utilization of the available instructional materials in the teaching learning process is one of the tasks expected from both teachers and students. Proper utilization of instructional materials helps the students to understand the subject matter they are learning. In this regard, Nicholls (2000) and Raw (2003) pointed out that the teachers have to use instructional materials to make the teaching – learning process interesting.

Table 8 indicates the responses given by teachers concerning the utilization of available instructional materials in the teaching learning process. Accordingly, 23 (29.4%) of the teachers, replied that the available instructional materials were used "some times". On the other hand, 49 (62.8%) of the teachers responded that the available instructional materials were used "rarely". Only about 3.8% of teachers reported that teachers used available materials either 'always'' or "frequently" It is obvious that students learn primarily through the senses by listening, observing, feeling doing and communicating ideas. According to Awobodu (2000), "teachers utilization of relevant equipment, materials and tools in teaching

learning enhances student achievement." This becomes a realty only when teachers make use of the instructional materials during the teaching learning process.

As to the data gathered through interview from school directors and librarians, the teachers rarely use the available instructional materials. Concerning this, the principal of one the schools expressed his views in the following manner: "It is clear for every teacher that instructional materials play an important role in the teaching learning process; yet the majority of the teachers use the available instructional materials rarely" According to the responses given by the teacher respondents, some of the reasons for not using the available materials were: Lack of interest, lack of awareness, absence of training and incentives for teachers.

4.4. Factors Affecting the Availability of Instructional Materials

Table 9: Teachers responses on factors affecting the availability of instructional materials.

Factors	Very high		High		Moderate		Low		Very low	
	No	%	No	%	No	%	No	%	No	%
Material supplies	2	2.56	58	74.35	13	16.6	3	3.8	2	2.56
Training	5	6.4	49	62.8	17	21.7	5	6.41	2	2.56
Finance	1	1.2	53	67.9	67.9	22	28.2	1.2	1	1.2
Teachers attitude	-	-	44	56.41	29	37.17	2	2.56	3	3.8
Teacher experience	-	-	50	64	26	33.3	1	1.2	1	1.2
Lack of adequate time	-	-	14	17.9	62	79.4	1	1.2	1	1.2
Teachers competence	-	-	35	44.8	31	39.8	8	10.25	4	5.12

There are various factors that could affect the availability of instructional materials in schools. Factors such as teachers commitment and self initiation, training status of teachers and pedagogical center coordinator and the support given by school principals and other concerned bodies to encourage teachers for the provision of financial and material support (Berhanne,1999), can affect the availability of instructional materials.

As can be seen from table 9, majority of the teachers, that is 74.35%, 62.8%, 67.9%, 56.41%, 64% and 44, 8% replied that shortage of material supplies, training, finance, teachers attitude, teachers experience, and teachers competence were the factors that highly affected the availability of instructional materials in their schools respectively.

Moreover, 16.6% 21.7%, 22.2%, 37. 17%, 33.3% 79.4%, and 39.8% of teachers respectively replied that material supplies, training, finance, teachers attitude, teachers experiences, lack of adequate time, and teachers competence moderately affected the availability of instructional materials in schools. In addition to this, the responses for interview questioned by school principals and librarians also showed that, lack of adequate finance, training given for teachers, absence of pedagogical centers where instructional materials could be produced and inadequate material supplies were some of the factors which affected the availability of instructional materials.

The school principal and the librarian of one of the sample schools replied in the interview that finance and interest of teachers were some of the factors which affected the availability of instructional materials. On top of this, the librarians of the same school replied that training is not given for the teachers on how to prepare instructional materials. As a result, the availability of instructional materials in the sample schools was low and this could affect the quality of education.

4.5. Factors Affecting the Utilization of Instructional Materials.

To investigate factors affecting the utilization of instructional materials teacher, school principals and librarians were asked and their responses are presented below:

Table 10: Factors Affecting the Utilization of Instructional Materials.

Factors affecting the utilization of IMS	Very High		High		Moderate		Low		Very low	
	No	%	No	%	No	%	No	%	No	%
Training	2	2.56	41	52.5	26	33.3	5	6.41	4	5.12
Teachers attitude	1	1.28	44	56.45	23	29.49	5	6.41	5	6.41
Lack of ample time	-	-	14	17.94	40	51.2	22	28.2	2	2.56
Finance	5	6.41	40	51.28	29	37.17	2	2.56	2	2.56
Material availability	2	2.56	50	64%	13	16.6	8	10.25	5	6.41

The teaching learning process conducted in schools in the absence of instructional materials is fruitless. Utilization of instructional materials makes the lesson easily understandable by the students. It is obvious that effective instructions can not be well accomplished without the use of instructional materials. Instructional materials have some inherent advantages that make unique contribution in motivating students and making the teaching learning process interesting.

As it is shown in table 10, 52.5%, 56.45%, 51.28, and 64% of the teachers respectively replied that training, teachers' attitude, finance and material availability highly affects the utilization of instructional materials. On the other hand, 33.3%, 29.49% 51.2%, 37.17% and 16.6% of the teachers respectively answered that training, teachers' attitude, lack of ample time, finance and availability of materials moderately affects the utilization of instructional materials.

The interview conducted with the school directors and the librarians also indicated that due to lack of training and low teachers attitude, the utilization of scarcely available instructional materials was below a required level. The majority of the school directors replied that absence of pedagogical center and laboratory had affected the utilization of instructional materials. Furthermore, they indicated that absence of short term training on how to utilize

instructional materials and budget allocation affected the utilization of instructional materials.

As one of the school principal in the selected secondary schools replied, since the school doesn't have pedagogical center it is not possible to produce enough instructional materials, and this affected the utilization of instructional materials.

The interview conducted with the librarians also reveled that the material availability in libraries was low. Most of the libraries have no sufficient numbers of reference books, atlas, globes, maps and other necessary instructional materials.

Observation conducted by the researcher also indicated that the availability of the instructional materials was "low". There were very few instructional materials in different departments and these materials were not properly utilized by the teachers. In addition to this, even though there were enough plasma television in most of the selected secondary school, they were not utilized, because of the problem of electricity and channel adjustment.

4.6. *The presence of library and Pedagogical Center in the selected secondary schools.*

Teachers and students drawn from the selected sample schools were asked whether or not the school had library and pedagogical center.

Table 11: Responses concerning the presence of library and pedagogical center

Material	Respondents	Response				
		Yes		No		Total
		No	%	No	%	
Library	Teachers	78	100	-	-	78
	Students	462	100	-	-	462
Pedagogical center	Teachers	-	-	78	100	78
	Students	-	-	462	100	462

Libraries have a very great importance for both teachers and students, because it is an area where different reference books are found. These reference books help these individuals to get more knowledge on the subject matter they are teaching or learning. Pedagogical centers are centers where instructional materials are prepared from locally available resources by both teachers and students. These instructional materials are also stored here for further utilization by teachers and students in the teaching learning process. Different diagrams, charts, pictures, models, and others can be produced with low cost and utilized for the teaching learning process. Pedagogical centers are also sites where research works could be conducted to improve the teaching learning process. According to the standard set by OEB every secondary school should have its own pedagogical center.

As it is indicated in table 11, all of the teachers 78 (100%) and students 462 (100%) replied that the schools had libraries. All of the school principals and librarians were interviewed whether there were libraries in their respective schools and all of them replied that there were libraries that had no enough instructional materials. In addition they were asked about the presence of pedagogical centers and all of them replied that there were no pedagogical centers in the respective schools.

The interview conducted with the school principal also agrees with the fact given by teachers and students. Most of the school principals indicated that there were no formal pedagogical center in their schools, but they used departments as a pedagogical center.

According to the response given by the majority of the school principals, and librarians, even thought there were no formal pedagogical centers in their schools, the rarely available instructional materials were stored in the respective departments. The school principals were also asked whether the teachers and students prepare instructional materials from locally available materials in the departments and they replied that both the teachers and the students rarely prepare instructional materials in the respective departments.

Further more, all of the school directors and librarians were interviewed whether there were laboratories in the school or not. Three of them replied that their school had a laboratory and 5 of them replied that their schools had no laboratories.

One of the school director replied that the school laboratory didn't have a trained laboratory technician that could facilitate conditions for the teachers.

The laboratories that are mentioned above didn't have sufficient instructional materials. The main reason why the schools didn't have laboratories as mentioned by the respondents was because they depend on plasma as if it replaced the laboratory. Moreover, the researcher also made an observation to see whether each school had a library, laboratory and pedagogical center. The result agreed with responses given by different respondent groups.

4.7. The Students, Text Book Ratio.

Text books are one of the most important in structural materials that are used in the teaching learning process.

Table 12: Students text book ratio

Respondents	1:1		1:2		1:3		If there is any		Total
	No	%	No	%	No	%	No	%	
Teachers	68	87.17	8	10.25	2	2.56	-	-	78
Students	392	84.8	62	13.41	8	1.73	-	-	462

As shown in fig 12, the majority of the teachers 68(87.17%) and the students 392 (84.8%) replied that the student text book ratio was 1.1. On the other the hand 10.25 of the teachers and 13.41% of the students replied that the student book ratio is 1.2.The interview conducted with the school principals also supported the above fact. The majority of the school principals replied in the interview that in most of the subjects the student book ratio is 1.1.But there are some text books that are still used in the ratio of 1.2, particularly in the newly opened schools. This shows that there is little shortage in text books. Moreover, the document analysis conducted in the sample schools was in agreement with the reports given through interview and questionnaires.

Table 13: Shows the Student Text Book Ratio in Different Subjects

School subjects	Text book- student ratio
Afan Oromo	1:1
English	1:1
Amharic	1:2
Mathematics	1:1
Physics	1:1
Chemistry	1:1
Biology	1:1
History	1:2
Geography	1:1
Civic Education	1:1

As indicated in table 13, in most of the subjects the student-book ratio is 1:1. This indicates that the problems related to student book ratio were minimum. In subjects like Amharic and History, the student book ratio is 1:2. This result agreed with the responses given by both students and teachers.

4.8. Frequency of Utilization of Library by Students and Teachers

Table 14: Frequency of the utilization of library by both teachers and students.

Respondents	Always		Usually		Some times		Rarely		Not at all	Total	
	No	%	No	%	No	%	No	%	No	%	
Teachers	13	16.6	14	17.9	19	24.3	32	41	-	-	78
Students	58	12.5	94	20:3	193	41.77	217	46.96	-	-	462

As indicated in table 14, the majority of the teachers 32 (41%) and the majority of the students 217 (46.96%) replied that the use the library rarely. More over 19(24.3%) of the teachers and 193(41.7%) of the students use the libraries some times.

The interview presented for the school directors and librarians also confirmed the above fact. Most of the librarians responded in the interview that their schools did not have sufficient number of reference books and a convenient library for students to sit in and comfortably read. This shows that the utilization of libraries was low.

4.9. Support Given by the School Principals to the Library, Laboratory and Pedagogical Center

Teachers and students drawn from the selected sample schools were asked whether or not the school principals support the laboratory, pedagogical center and library. The result of their responses is presented below:

Table 15: Support given by principals for the Library, Laboratory and pedagogical center.

Respondents	Very strong		Strong		Undecided		Weak		Very weak		Total
	No	%	No	%	No	%	No	%	No	%	
Teachers	-	-	-	-	-	-	53	67.94	25	32.05	78
Students	-	-	26	5.62	-	-	314	67.96	102	22	462

As shown in table 14, 53(67.94%) of the teachers and 314 (67.96%) of the students replied that the supports given to the library, laboratories and pedagogical center were "weak." Moreover, 25 (32.05%) of the teachers and 102(22%) of the students replied that the supports given by the school principals were "very weak." The interview conducted with the librarians also supported the above fact.

On the other hand, observation conducted by the researcher also supported the responses given by both teachers and students of the selected samples schools. Three of the sample schools had none functional laboratories and the remaining 5 schools had no laboratories. From these facts, we can understand that the teaching learning process conducted by science teachers is not supported by laboratory experiments and activities.

Table 16: Annual Budget Allocated for Instructional Materials

Respondents	Highly adequate		adequate		Some what adequate		Low		Total
	No	%	No	%	No	%	No	%	
Teachers	-	-	-	-	14	17.9	59	75.64	78

As Shown in table 16, majority of the teachers, 59 (75.64), responded that the budget allocated for instructional materials was "low". On the other hand 14 (17.9%) teachers replied that the budget allocated for instructional materials was some what adequate.

The interview conducted with the librarians also supported the above fact. This means, the budget that could be used to buy or prepare instructional materials was insufficient. In such situation, where schools are incapable to provide supplies for preparation of materials, it is hardly possible to expect teachers to contribute much in this respect.

4.10. Supervision Conducted by School Principals

Table 17, Supervision conducted by principals in the classrooms

Item	Respondents	Agree		Undecided		Disagree		Total	
		No	%	No	%	No	%		%
Class observation by principals	Teachers	13	16.66	40	51.2	35	44.8	78	100

As shown in table 17, 40 (51.2) of the teachers replied "undecided" in relation to the supervision conducted by the school principal and 35 (44. %) of the teachers replied that they disagree with the idea that supervision was conducted by the school principals in the classroom to assess the strength and weakness of the teachers to give a corrective support for the teachers.

This generally shows that the utilization of instructional materials was not supervised by school principals. This obviously may affect the quality of the teaching learning process.

Chapter Five

5. Summary, Conclusions and Recommendations

5.2. *Summary*

The purpose of this study was to investigate the availability and utilization of instructional materials and to identify factors affecting the availability and utilization of instructional materials in the secondary schools of West Wollega Zone. In order to achieve this purpose the following basic questions were raised:

1. How adequate are available instructional materials in the secondary schools of West Wollega Zone
2. How often do teachers use instructional materials?
3. How often do teachers and students produce instructional materials?
4. What factors do affect the availability, and utilization of instructional materials?

The study was conducted in eight randomly selected general secondary schools of West Wollega zone. The sources of the data in the study were teachers, students, school principals and librarians of the sample schools. The participants were selected using simple random and purposive random sampling technique. The instruments used were questionnaires, interview, observation and document analysis.

Since most of the schools had no laboratories; there were no laboratory technicians to be used as a source of data. The data collected were analyzed using percentages and interpreted based on the basic research questions. Based on the analysis of the data, the major findings of the study are summarized as follows:

According to the majority of the respondents, the availability of instructional materials in each subject in the sample schools of West Wollega Zone was "low". The observation conducted by the researcher and the interview presented for the school principals and librarians also support the above finding. There were no pedagogical centers and only few laboratories were present. There were few computers in each school that don't correspond with the number of the students.

As indicated by the respondents the main reasons were lack of awareness and poor allocation of budget from the concerned bodies. The findings revealed that the most available instructional materials were textbooks, teachers guide and syllabus and plasma TV. On the other hand, the basic instructional materials such as models, diagrams, charts, pictures, atlas, globes reference books and science kits were rarely available.

In relation to the factors affecting the availability of instructional materials, majority of the teachers and the students responded that supply of materials, training, finance, teachers experience, support given by school management and teachers competence affected the availability of instructional materials.

The interview conducted with school principals and librarians also supported the above facts. Regarding the utilization of the available instructional materials, majority of the respondents replied that the available instructional materials were rarely used. The main reasons why teachers do not use the available instructional materials in because of lack of awareness, lack interest, and absence of initiation from the concerned bodies. The Plasma Televisions are not also functional because of lack of power supply in many schools.

Concerning factors that affected the utilization of instructional materials, most of the respondents replied that absence of training, teachers attitude, finance and material availability highly affected the utilization of instructional materials. Interview responses with the school principals and librarians were also in agreement with the responses given by the teachers and the students.

In addition to this, lack of laboratory rooms as indicated by school principals was also another factor that hinders the utilization of the available instructional materials.

In relation to the support given by the school principals, most of the respondents replied that the support given by the school principals in making the instructional materials available and in giving support was "low". As most of the teacher respondents replied the school principals rarely supervise the classes during the teaching learning process.

Regarding the preparation of instructional materials, both the teachers and the students rarely prepare it, due to the fact that all the schools do not have pedagogical centers .Instead of pedagogical centers they use departments as sites to prepare and store the rarely available instructional materials.

5.3. *Conclusions.*

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

- Concerning the availability of instructional materials, the budget allocation, the support given from the concerned bodies, the supervision conducted by the school principals, teachers' awareness on the importance of instructional materials was not sufficient. Hence, the teaching learning process that is not supported by instructional materials would be ineffective.
- In relation to the utilization of instructions materials, the findings revealed that most of the teachers utilized the instructional materials rarely. This is mainly due to inadequate supply of instructional materials, the failure of the school leadership to facilitate necessary condition for the utilization of instructional materials.
- Pertaining to the preparation of instructional materials, the study indicated that both teachers and students produced it rarely. This is due to the absence of training that was given for both teachers and students on how to prepare instructional materials from locally available recourse, absence of pedagogical centers, absence of trained pedagogical center coordinators and low budget allocation. This resulted in inadequate preparation of instructional materials.

- As it could be concluded from the findings of the study, due to the various factors out lined above, the availability, production and utilization of instructional materials in the sample schools was not under taken in a desired manner. This could be due to the problem of management and weak sprit of cooperation among school communities.

5.4. Recommendation

Based on the conclusion drawn from the study, the following recommendations are given:

1. It is advisable to provide sufficient training for school principals, teachers, pedagogical center coordinators, laboratory technicians, librarians and students on how to prepare and utilize instructional materials from locally available resources.
2. It seems important to establish sufficient laboratory rooms and pedagogical centers for the schools and assign trained laboratory technicians and pedagogical center coordinators.
3. Motivating the teachers to use instructional materials by giving incentives for those teachers who use instructional materials during learning process.
4. There is need for all stake holders including the regional states and the local governments and the private sectors to contribute financially and materially in the provision of instructional materials and resources for the teaching learning process.
5. School heads, principals and officials of the ministry of education should ensure regular supervision to enhance effective use of instructional materials in teaching different subjects.

Generally, the concerned bodies should pay much attention to make students learning more concrete, meaningful, dynamic, and creative and problem solving by integrating adequate instructional materials in the teaching learning process.

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Appendix A

Addis Ababa University School of Graduate studies Department of Educational Planning and Management.

Questionnaires to be Filled by Teachers.

This questionnaire is developed to collect necessary information in relation to the availability and Utilization of instructional materials in selected secondary schools of West Wollega zone. Since the success of the study depends up on your genuine information, you are kindly requested to respond honestly and thoughtfully. The information you provide will be used only for the research purpose and you are assured that your responses will be held strictly confidential.

You are not required to write your name.

Thank you for your cooperation

Part one

Information About the Respondents.

1. Name of the School ----------
2. Sex: A) Male B) Female
3. Age: A) 20-29 B)30-39 C)40-49 D) greater than 49
4. Service year A) 1-5 B)6-10 C) 11-15 D) 16-20 E) over 20
5. Educational qualification ----------

Part two

Instruction: Most of the questions given below are followed by possible alternative responses. Please, indicate your response by selecting the appropriate alternative for each item. For items without alternative responses, please supply short written responses appropriately.

1. How adequate is the supply of instructional materials in terms of quantity required for teaching general secondary school?

A) Very high B) High C) Moderate D) Low E) very low

2. The following are possible supplies affecting the availability of instructional materials. How do you rate the availability of such supplies?

Supply	Very high	High	Moderate	Low	Very low
Papers and ink					
Locally prepared materials					
Financial support from the school					
Maps					
Reference books					
Syllabus and teachers guides					
Charts					
Models					
Diagrams					
Science kits					
Globes					
Text books					
Computers					
Plasma TV					

3. How often the available instructional materials used in teaching the subjects in general secondary school? A).Always used B) Frequently used C) some times used D) Rarely used E) not used at all

4. If your answer to question number 3 is "rarely used or not used at all '', please

Write reasons for not using.

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5. The following are possible factors that could affect the availability of instructional materials. How do you rate them according to their impact on the availability of instructional materials?

Factors	Very high	High	Moderate	Low	Very low
Material supplies					
Training					
Finance					
Teachers attitude					
Teachers experience					
Lack of adequate time					
Support given by school management					
Teachers competence					

6. The following are lists of factors which affect the utilization of instructional materials. How do you rate these factors based on their impact on the utilization of instructional materials.

Factors affecting utilization of instructional materials	Very high	High	Moderate	Low	Very low
Training					
Teachers attitude					
Lack of ample time					
Finance					
Material availability					

7. Is there library in your school? A) Yes B) No

8 If your response to question number 7 is "yes", how often do you use it?

A) Always B) Usually C) Sometimes D) Rarely.

9 Is there a pedagogical center in your school? A) Yes B) No

10. If your response to question number 9 is "yes" how adequate are the availability of instructional materials?

A) Very high B) High C) Moderate D) Low E) Very low

11 Do you prepare instructional materials in pedagogical center from locally available materials? A) Yes B) No

12. If your answer to question number 11 is "yes" please indicate how often you

Prepare the instructional materials.

A) Always B) Usually C) Some times D) rarely.

13. If your answer to question number 11 is "no" please, write down some of the reasons

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14. How do you rate the support of your school principal in relation to pedagogical center?

A) Very high support B) High support C) Undecided

D) Low support E) Very low support

15. The annual budget allocated for school pedagogical center in your school.

A) High B) Moderate C) Low D) not allocated at all

16. What is the student book ratio in the subject you are teaching?

A) 1:1 B) 1:2 C) 1:3 D) if other, specify.

17. If you have any other idea and suggestion in relation to the availability and utilization

of instructional materials. Please indicate your idea on the space provided.

Part Three

Instruction: - Indicate your agreement by writing "√"mark for each of the following statements.

No	Activities	Agree	Undecided	disa gree
1	School principal makes available to the teachers instructional materials in library, school pedagogical center, and laboratory.			
2	School leadership allocate enough amount of budget for instructional materials			
3	School principal gives relevant advice to teachers on how to prepare and utilize instructional materials			
4	School principal assesses the problems of teachers in preparing and using instructional materials and provide immediate solution			
5	School principal supervises the utilization of instructional materials by teachers. in the class room.			

Part Four

Direction: - Indicate your agreement by writing " √" mark on the space provided for each the following sentences concerning the activities pedagogical center Coordinator is undertaking in your school. A= Agree U= undecided DA= Disagree

No	Activities	A	U	DA
1	Produce simple teaching materials for the teaching learning process			
2	Help both teachers and students in preparing instructional materials.			
3	School pedagogical center coordinators organize instructional materials and make them readily available for utilization.			
4	Assess the problems of teachers on instructional materials and report to concerned body.			
5	Give necessary advice on the preparation and utilization of instructional materials.			

Appendix B

Addis Ababa University School of Graduate Studies Department of Educational Planning and Management.

Questionnaires to be filled by general secondary school students

This questionnaire is developed to collect necessary information in relation to the availability and Utilization of instructional materials in selected secondary schools of West Wollega zone. Since the success of the study depends requested up on your genuine information, you are kindly requested to respond honestly and thoughtfully. The information you provide will be used only for the research purpose and you are assured that your responses will be held strictly confidential.

You are not required to write your name.

Thank you for your cooperation

Part one

Information about the respondents.

1 Name of the School ----------

2. Sex: A) Male B) Female
3. Age: A) 15-18 B)19-22 C)23-26 D) greater than 26
4. Grade A) 9 B) 10

Part Two

Instruction: Most of the questions given below are followed by possible alternative responses. Please, indicate your response by selecting the appropriate alternative for each item. For item responses without alternative responses, please supply short written responses appropriately.

1. How adequate is the supply of instructional materials in terms of quantity required for teaching general secondary school?

   A) Very high B) High C) Moderate D) Low E) very low

2. The following are possible supplies affecting the availability of instructional materials. How do you rate the availability of such supplies?

Supply	Very high	High	Moderate	Low	Very low
Papers and ink					
Locally prepared materials					
Financial support from the school					
Maps					
Reference books					
Syllabus and teachers guides					
Charts					
Models					
Diagrams					
Science kits					
Globes					
Text brocks					
Computers					
Plasma TV					

3. How often the available instructional materials used in teaching the subjects in general secondary school?

A) Always used B) Frequently used

C) Some times used D) rarely used E) Not used at all

4. If your answers to question number 3 is "rarely used or not used at all '', please write reasons for not using.

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5. The following are possible factors that could affect the availability of instructional materials. How do you rate them according to their impact their on the availability of instructional materials?

Factors	Very high	High	Moderate	Low	Very low
Material supplies					
Training					
Finance					
Teachers attitude					
Teachers experience					
Lack of adequate time					
Support given by school management					
Teachers competence					

6. The following are possible factors that could affect the utilization of instructional materials

How do you rate these factors based on their impact on the utilization of instructional materials?

Factors affecting utilization of instructional materials	Very high	High	Moderate	Low	Very low
Training					
Teachers attitude					
Lack of ample time					
Finance					
Material availability					

7. Is there library in your school? A) Yes B) No

8 If your response to question number 7 is "yes", how often do you use it?

A) Always B) Usually C) Sometimes D) Rarely.

9 Is there a pedagogical center in your school? A) Yes B) No

10. If your response to question number 9 is "yes" how adequate are the availability of instructional materials?

A) Very high B) High C) Moderate D) Low E) Very low

11 Do you prepare instructional materials in pedagogical center from locally available materials? A) Yes B) No

12. If your answer to question number 11 is "yes" please indicate how often you prepare the instructional materials .

A) Always B) Usually C) Some times D) rarely.

13. If your answer to question number 11 is "no" please, write down some of the reasons

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14. How do you rate the support of your school principal in relation to pedagogical center?

A) Very high support B) High support C) Undecided

D) Low support E) Very low support

15. The annual budget allocated for school pedagogical center in your school.

A) High B) Moderate C) Low D) not allocated

16. What is the student book ratio in your school?

A) 1:1 B) 1:2 C) 1:3 D) if other, specify.

17. If you have any other idea and suggestion in relation to the availability and utilization of instructional materials. Please indicate your idea on the specie provided.

Part Three

Instruction:- Indicate your agreement by writing " mark for each of the following statements.

No	Activities	Agree	Undecided	dis agree
1	Checks the availability of instructional materials in library, laboratory and pedagogical center and gives necessary corrections.			
2	School leadership allocate enough amount of budget for instructional materials			
3	School principal gives relevant advice to students on how to prepare and utilize instructional materials			
4	School principal assesses the problems of students in preparing and using instructional material sand provide immediate solution			
5	School principal supervises the utilization of instructional materials by teachers in the class room.			

Part Four

Direction: - Indicate your agreement by writing " mark on the space provided for each the following sentences concerning the activities pedagogical center coordinator is undertaking in your school.

No	Activities	Agree	Undecided	dis agree
1	Produce simple teaching materials for the teaching learning process			
2	Help both teachers and students in preparing instructional materials.			
3	School pedagogical center coordinators organize instructional materials and make them readily available for utilization .			
4	Assess the problems of teachers on instructional materials and report to concerned body.			
5	Give necessary advice on the preparation and utilization of instructional materials.			

Appendix C

Interview for School principals

Part one

1. Woreda ----------
2. Name of the school ----------
3. Sex ----------
4. Age ----------
5. Qualification----------

1. Does your library have enough amounts of reference books for different subjects?
2. Do students and teachers use the library?
3. Does the school laboratory contain different equipments, chemicals, apparatus, models and other necessary instructional materials?
4. Do teachers and students use pedagogical center for producing instructional materials?
5. Do the instructional materials found in the pedagogical center utilized during the teaching learning process?
6. Do teachers use the laboratory for practical activities?
7. What are your challenges regarding the preparation and utilization of instructional materials?
8. What do you think are immediate solutions for the challenges affecting the availability and utilization of instructional materials?
9. What is training status of the school pedagogical center coordinator, librarian and laboratory technician?
10. What do you think about the budget allocation for instructional materials?
11. What is the student book ratio for each subject?
12. How often do you supervise and advice teachers to prepare and utilize instructional materials?
13. Is ICT center functional? How many computers do you have?
14. Do you have any other idea in relation to the availability and utilization of instructional materials which you haven't so far mentioned? Please indicate them.

Appendix D

Interview for librarians.

Part one.

Basic information.

1. Woreda ----------
2. Name of the school ----------
3. Age ----------
4. Qualification. ----------
5. Service years as librarian ----------

Part II

1. Are there different kinds of reference books, Atlas, Globes, Maps, and other necessary instructional materials available in the school library?
2 Do the students and teachers use the instructional materials in the library?
3 .What are your challenges regarding the availability and utilization of instructional materials
4. Does the director assist you in solving the challenges mentioned above?
5. Do you have any other idea in relation to the availability and utilization of instructional materials which you haven't so that mentioned? Please indicate them.

Appendix E

Observation check list

Part one

School pedagogical center observation check list

1. Name of the school ----------

2. Years of service ----------

3. Is these pedagogical centers in your school? A) Yes B) No

4. Is it Functional? A) Yes B) No

5. Types of instructional materials observed in the school pedagogical center, the quantity and the quality

No	Types	Quantity		Quality	
		Sufficient	Not sufficient	Sufficient	Not sufficient
1.	Charts				
2	Diagrams				
3	Graphs				
4	Maps				
5	Pictures				
6	Drawings				
7	Specimens				
8	Models				
9	Flipcharts				
10	Globes				

7. Most of the instructional materials are

A) Teachers made B) Student made C) Purchased

8. How do you get the organization of instructional materials in your pedagogical center?

A) Highly organized for easy use B) Some what organized

C) Not organized at all

9. Is there daily and weekly follow up sheet for each teacher in the utilization of instructional Materials? A) Yes B) No.

10. If yes, how frequently do teachers use?

A) Always B) usually C) sometimes D) Rarely

11. If no, mention some of the reasons.

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12. The adequacy of instructional materials in terms of quantity and quality is

A) Very high B) High C) Average D) Low

13. Can you mention any other idea in relation to the observation of the availability and utilization of instructional materials that are not so far mentioned?