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The Implementation Status of Active-Learning Strategy in Upper Primary Schools of North Western Zone of Tigray: Challenges and Opportunities

BY

Meles Tikue Berhe

January 2011

Addis Ababa

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A Thesis Submitted to the School of Graduate Studies of Addis Ababa University in a partial fulfillment of the requirements for the Degree of Master of Arts in Educational Research and Evaluation.

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APPROVED BY BOARD OF EXAMINER

Desalegn Chalchisa (PhD)	_____
Chairman, Department Graduate Study committee	*Signature*
Firdissa Jebessa (PhD)	_____
Advisor	*Signature*
Derebssa Dufera (Prof.)	_____
Examiner, Internal	*Signature*

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Acronyms

AED - Academy for Education Development

BESO - Basic Education Systems Overhaul

ETP - Education and Training Policy

HDP- Higher Diploma Programme

ICDR - Institute for Curriculum Development and Research

MOE - Ministry of Education

TESO - Teachers Education system Overhaul

TTI - Teacher Training Institution

USAID - United States Agency for International Development

ABSTRACT

The purpose of this study was to examine the practice of active learning in upper primary schools of North Western zone of Tigray. Furthermore, it treats factors that affect the proper implementation of active learning. To accomplish this purpose, the study employed a descriptive survey method, which is supplemented by qualitative research methods to enrich the data. With this respect, teachers, students, directors and cluster supervisors were the sources of data for the study. The data gathering instruments were questionnaires, interviews and observations.

The questionnaires were dispatched to 200 students, 60 teachers, and interviews were made with 16 directors and 6 cluster supervisors drawn from 16 schools which were teachers and students using simple random sampling, and directors and supervisors using availability system in the academic year of 2010/11. Moreover, 32 sections of grade seven and eight observation was made, two sections from each school at the departments of Language and Natural Science.

The data obtained through questionnaires were quantitatively analyzed and interpreted in light of available literature whereas the information obtained through interview and observation were qualitatively described to supplement the quantitative data.

The results of this study reveal that though the attitude of teachers and students toward active learning was positive and not serious problem, the level of practice of active learning was found to be low and moderate. Especially to use different strategies of active learning were not fully performed., Appropriate teaching methods were not used to address the comprehensive benefits of active learning, and teachers' self-evaluation were not performed sufficiently. Furthermore, the study revealed that teachers' and students' tendency to prefer traditional lecture method, majority of students become dependent on the minority, shortage of time, lack of support from educational leadership, lack of teachers' commitment, inadequacy of teachers' training, lack of teaching resources, unavailability of facilities, teachers' high workload, inconclusive of the class-room, were among the factors that hindered the implementation of active learning.

It has been recommended that creating awareness, continuous and intensive short-term and long-term training should be offered for teachers on the practice active learning and about different strategies of active learning to improve their instructional practice to over come the challenges of implementation active learning. Besides, to alleviate or solve the factors that hinder the proper implementations of the practice, the school administrative body ought to create conducive environments that helps for teachers' sufficient preparation and working time and provision of educational materials and resources to implement active learning methods in their class.

CHAPTER ONE

1. Introduction

This Chapter deals with background, statement of the problem, objectives, research questions, significance, delimitations, limitations, operational definitions and organizations of the study.

1.1 Background of the Study

Learning is a constructive process that occurs best when what is being learned is relevant and meaningful to the learner and when the learner is actively engaged in creating his or her knowledge and understanding by connecting what is being learned with prior knowledge and experience (Lambert & McCombs, 1998 in Yalew, 2004, p.19).

As indicated in the Ethiopian Education and Training policy document, the previous curriculum design and instructional process suffered from old and traditional approach (TGE, 1994). The curriculum organization emphasized academic knowledge and instructional methods, which initiated memorization and simple recall of facts by learners that was provided through official curriculum and presented by teacher's explanation or chalk and talk lecture method. This means teachers dominated the class-room instruction, where students were passively listening.

In relation to this issue, Walklin (1990) argues that in class, using teacher-centered methods may lead to problems, since it is often difficult to establish a norm for the group in terms of tasks and goals, sequence, pace and learning expectations. Highly anxious students may demand that the teacher controls every thing whereas others would prefer a more flexible, individualized learning approach.

On the contrary, active learning approach emphasizes on active learning than active teaching; the learner is a focus than the teacher. The learner is actively constructing his or her own knowledge out of the materials that are around. Thus, the teacher acts as a facilitator who provides an environment that is rich in materials for learning. To this end, effective teaching and learning requires the use of different methodologies and pedagogies to meet the demands

of the new generation, new techniques and the ever changing educational environment. The evidence is also clear that the total benefit to learning multiply when schools open their doors to active learning approach.

As a result, in schools throughout the world, there is movement away from learning that is made up of memorizing; learning by rote and from teacher- centered to a new modes student-centered that emphasize for making connection in the world around us, collecting and using information in active manner (Lue, 2000).

This shift was required because memorizing facts and bits of knowledge is not effective learning and does not prepare learners to understand their environment or function in it effectively (Lue, 2000). Similarly, Kuh (2003) in Dawit (2007); Chickening and Gamson (1997); Lue (2000) argue that students do not learn much just sitting in the class listening to teachers, memorizing package assignment and spitting out answer. They must talk about what they learn, write reflectively about it; relate it to past experience and apply it to their daily life. They must make what they learn part of themselves. That is to say the real life situation form the basis for learning and teaching is generally believed that the impact of active learning in the teaching – learning process is very crucial. But this not mean active learning strategy is the only best methods. As Firdissa (2005) stated there is no one "right" method for teaching a particular lesson, but there are some criteria that pertain to teach that can help a teacher make the best decision possible from among the numerous teaching methods in use today (p. 55).

In short, pouring of facts and concepts in to students' heads and masterfully performing skills and procedures is not an effective learning. Rather, it demands several exposures to material, to chew on them, to understand them, not jest repetition of in puts. From these perspectives one can understand that before attempting to teach, the teacher must know what it is that he or she intends to teach and what the students are expected to learn as an out come of the joint effort. In addition to this, he or she must think the appropriate way of implementation of active leaning in class-room (Chickening and Gamson, 1997; McCombs and Whisler, 1997).

However, there are some constraints which can impede the proper implementation of active learning. Some of the factors are connected with curriculum materials, instructional

activities, organizational structure, and beliefs or understanding about the curriculum and learning practice (Ornstein & Hunkins, 1998; Jonassen & Grabowski, 1993 in Yalew, 2004, p.17).

To minimize these constraints, different scholars pointed-out some solutions. For instance, Ornstein and Hunkins, (1998); McCombs and Whisler (1997) suggest that the integration of teachers, program and organization are very important factors for successful implementation of new curriculum. (p.292 & p.2)

In connection with this, Mehari (2007) stated that effective teaching is the responsibility of a teacher. To do so, "a teacher has to be creative and innovative enough in many aspects, like in materials preparation and in teaching methodology". If a teacher is creative and innovative, students become active learners and critical thinkers. If the students become active learners and critical thinkers, they are in a position to make their learning meaningful (p. 74).

Generally, in line with the above discussion, Ethiopia believes aspiring to address the development issue in the country; the government has emphasized the promotion of active learning that the way for the development of problem-solving capacity both in the content and approach of education. The government of Ethiopia is trying its best to establish systems and channel resources to promote active learning in order to produce citizens that are well equipped with the skill and knowledge to solve problems and bring about a difference in their life and the country as well. Therefore, Education and Training Policy recognize for active learning methods as the basis for effective teaching and learning process is going on.

Even thought active learning strategy is widely accepted, and given due attention by our Education and Training Policy and helps to prepare learners to solve problems, make them creative and use information from their environment and other sources to make a better life for themselves and the society and as a whole for the country, some research findings and experiences have shown as its proper implementation is doubtful and not go beyond lip services. Thus, it seems imperative assessing the level of practice of active learning method in relation with its opportunities and challenges in some selected upper primary schools of North Western zone of Tigray.

1.2 Statement of the Problem

The Education and Training Policy highly encourages a paradigm shift from the teacher-centered to student-centered approach. Student-centered approach leads to effective teaching learning and promotes the development of students' critical thinking and to engage them in the teaching learning process actively and effectively. Therefore, teachers at all levels of education are expected to implement active learning strategies so as to help learners to learn actively. In this sense, students are given the freedom to explore areas based on their personal interests, and accompanied in their striving for solutions by a supportive understanding facilitator, not only achieve high academic results but, also experience and increase in personal values, such as flexibility, self-confidence, social skills and problem- solving capacity(Peter, et al, 2000, p. 4).

To this end, primary school teachers are expected to implement active learning to attain the desired goal. But researches and experiences have shown that there is an anomaly between theory and practice in Ethiopian context. This is to mean that what has been stated in the policy might not be implemented practically due to some reasons. In relation to this topic many studies have been conducted in different parts the country at different levels of schooling .For example, Wendemagegnehu (2006) and Lemma (2006) in their research findings indicated that the level of utilization of active learning pedagogy was found very poor in some selected primary schools of their studied areas. Moreover, Derebssa (2006) has found out that traditional lecture methods dominated in most of the observed class-room in primary schools of Ethiopia.

The main reason to the ineffectiveness of the practice of active learning in the actual class-room is suggested by some researchers. For instance, Lue (2000) suggested that there are some constraints which can impede the proper implementation of active learning. Some of the factors are connected in the midst of the pressure of syllabus, improper class-room organization and management, lack of trained teachers, school directors and problem with the students, attitude of teachers, etc.

In relation to the above experience the researcher observed some problems in practicing the active learning while he was working in that zone for some years. In addition to these related researches which were conducted in different parts of Ethiopian Universities, Colleges and Primary schools before five years ago and it is imperative currently assessing. And this study

treated additional variables which were not so far studied. Moreover, research undertaken on active learning implementation in Tigray region and particularly in North Western zone seems very limited. So this is why the researcher kicked off to take an investigation on this issue.

Accordingly, the purpose of this study was to assess how active learning strategy is practiced, the attitude of teachers and students, as well as the opportunities and the major problems encountered while active learning strategy is implementing. It moreover, elucidates the engagement of teachers' self-evaluation after the active learning strategy has been practiced in the class-rooms of some selected upper primary schools of North Western zone of Tigray.

1.3 Objectives of the Study

The study was intended to achieve the following specific objectives:

1. To examine the extent to which active learning strategy is practiced in the class-rooms of upper primary schools of North Western zone of Tigray.
2. To address the opportunities and/or problems/ challenges associated with active learning strategy.
3. To explore the perception of teachers and students towards active learning strategy.
4. To assess whether the teachers are engaging in self-evaluation after active learning strategy is practiced in class-room.

Accordingly to attain the objectives stated above, the study tried to answer the following basic research questions:

1. To what extent the active learning strategy is implemented (practiced) in the upper primary schools of North Western zone of Tigray?
2. What are the opportunities and challenges in implementing active learning strategy in upper primary schools of the zone?
3. What is the attitude of teachers and students towards the active learning strategy in the schools?
4. To what extent teachers evaluate their successes after they practiced active learning strategy in class-room of upper primary schools of North Western zone of Tigray?

1.4 Significance of the Study

The result of this study is expected to benefit stakeholders at different levels as it is uncovering the prevailing practice and realistic contribution of the active learning strategy in upper primary schools. Moreover, the study has shed light on the challenges and opportunities in implementing the active learning strategy in specific terms the study is significance:

- to direct participants in the upper primary schools', particularly to, teachers, students, directors, supervisors and administrators so as to use the strategy appropriately.
- Education officers by giving valuable evidence about the level of active learning and the implementation problems encountered at the grass root level. This would help to the management of the educational system to take corrective measures.
- To serve as a point of reference for other researchers to conduct research in the area of active learning at higher scope.

1.5. Delimitation of the Study

The scope of this study was delimited to the assessment of the practice of the active learning method to four woredas, and 16 upper primary schools of North Western zone of Tigray in the academic year of 2010/11. As to its area coverage, due to the researcher's wide experiences to these schools and due to the shortage of time, the study was confined to one zone of Tigray Region. To make the study manageable and specific its content was delimited the following issues:

- the extent to which teachers practice active learning in class-rooms,
- the challenges encountered during the implementation of active leaning approach in class rooms (in relation to instructional process, instructional activities, instructional strategies, conduciveness of the class rooms, existence of library/pedagogical center/, etc),
- teachers' and students' attitudes towards the active learning strategies, and
- Teachers' self evaluation after active learning strategy practiced in class-rooms.

1.6 Limitation of the Study

Due to shortage of time, resources and other variables, focus group discussion method among participants was not conducted. The observation method was employed one period in one class, so this may not be enough to assess every teachers' and students' activity. Hence these were among the factors that have put limitation to the study. Unreserved effort, however, has been made to minimize the effect of the limiting factors.

1.7. Operational Definitions of Concepts

1. **Active learning:** refers to the active involvement of the learners in different learning tasks within and out of the class room such as; group work, projects, role-playing, field trip, discussion, and problem solving, etc.
2. **Approach:** is a perspective, an assumption, way of thinking or way of dealing with a nature of teaching and learning.
3. **Attitude:** the view of teachers and students to wards the implementation of active learning.
4. **Implementation:** activities which are like instructional strategies, instructional activities, instructional methods, etc, put into practice in a class-room by the teacher
5. **Director:** refers to the school head teachers in the upper primary school.
6. **Upper primary schools:** refers to grade levels five to eight.

1.8 Organization of the Study

The study comprises five Chapters. The first chapter deals with the problem and its approach, consisting of back ground of the study, statement of the problem, objectives of the study, research question, significance of the study, delimitation, limitations and operational definition . The second focuses on the review of related literature, which lays the conceptual frame work on the instructional technique in general and active learning approach in particular including the attitude and practice on active learning, the opportunities and challenges of active learning. The third Chapter deals with research methodology and procedures of the study. The fourth Chapter presents analyses and discussion of the results. In Chapter five, brief summaries of the finding and conclusions have forwarded and finally possible recommendations have provided.

CHAPTER TWO

2. Review of Related Literature

This Chapter focuses on review of related literature which lays the conceptual framework on the instructional approach in general and active learning methods in particular. Moreover, it reveals perceptions and reactions on active learning, the way of evaluation on active learning activities and some factors that may influence the effective implementation of active learning method.

2.1 Philosophy of Instructional Approaches

Every instructional approach has its own basic philosophical epistemology. In this sense, epistemology is simply a philosophical term used to desire the concept of knowledge or the theory of knowledge that guides the way we think, the system we design and our action (ICDR, 1999, p. 61).

When we come to instructional philosophy, in the contemporary literatures, we find two general notions as the basis of knowledge in general or learning of the individual in particular. These are positivist and constructivist epistemology, which have been explained below (Lue, 1998 in ICDR, 1999, pp. 62-63).

A positivist epistemology assumes that knowledge exists separately from the learner. It explains knowledge as fixed and belonging to separate areas out there. According to this out look, the room for interpretation on the part of the individual or the learner is very little because knowledge is seen for being primarily fixed or stable. In this notion, the learner's task is to absorb or memorize facts or pieces of information usually taken from academic disciplines for the purpose of repeating them. There is less emphasis on linking facts and making a coherent and meaningful whole. Of course, positivism has played an important role in the development of science in that it has emphasized the use of objective evidences. But teaching is both science and art, which also has to do with interpreting the various learning environments. It is in this respect that many educators have criticized the assumption of positivists, "the memorizing of facts and thoughts would be sufficient to successful learning". Because, if teacher's task is to repeat or give prescribed pieces of information from the

syllabus or text books as efficiently as possible, this usually means using pedagogy of rote learning or chalk and talk instead of two-way communication.

On the other hand, a constructivist epistemology assumes that knowledge is produced, constructed and made meaningful through interaction between the individual or the learner and the world around him or her. This interaction leads to interpretation, understanding, not just memorization. It believes that the world is not seen as being made up of fixed facts; rather it is viewed as unstable depending up on the interpretation of the observer or the learner. It is seen as being unified, coherent and interrelated rather than being made up of separate bits and pieces of information which is indicating its belonging to separate academic subject areas. Thus, one can easily infer that the constructivist perspective emphasizes on analysis and interpretation, the use of available facts in a creative, analytical or critical way rather than just observing them for the purpose of repetition or memorization. The learner's task is to interact with the world around him or her to understand, think, make linkage, interpret, draw conclusions and communication about what he or she is learning; not just to absorb or accurately repeat information. In the same way, the teacher's task is to use class-room methods that encourage the pupils to be active as possible as by giving knowledge through the use of active learning, higher-order thinking skills, problem solving and communication based methods in their teaching (Lue, 1998 in ICDR, 1999, pp. 62-63).

In the real world education system, children enter the formal school, either kindergarten or grade one, with ideas and understanding of their world, which are known as concepts. They learn these concepts from their daily life experiences. These pre-school concepts are their educational foundation up on which children build further concepts and it is built up on when they enter school, which they continue to develop them through out their lives. For instance, it is very likely that children have learned that fire is dangerous because it burns. They also know that they drink water, use it to wash. Thus, they know the usefulness of water. In short, students' daily experiences and the knowledge they acquired become the foundation for their school learning. And as students gain new knowledge and have new experiences in the class-room, they will continually be making links to what they already know. They naturally try to

see how it fits into what they already know. It is this continual process of making or constructing meaning that is said to be constructivism (AED/BESOII, 2004, p. 2).

In line with this, Dary and Jerry (1993) elaborate that to positivists, knowledge is external to individuals and is viewed as not coherent body of ideas but it is proven and factual. Here, the major intent of teaching is to transfer this knowledge from the teacher to the students. Whereas, according to constructivists knowledge is considered to be internal to the learner and the particular linkages among ideas and learners from what is learned and from previous experiences (pp. 88-89).

Moreover, constructivism tells us that we learn by fitting new understanding and knowledge in to, with, extending and supplanting, old understanding and knowledge. As lectures we need to be aware that we are 'writing on a blank slate', however rudimentary, or wrong, pre-existing related knowledge and understanding are. With out changes or additional to pre-existing knowledge and understanding, no learning have occurred (Ketteride & Marshall, 2004, p. 11).

To sum up, a conceptual analysis of the various philosophical ideas underlying the use of instructional approaches is very vital to curriculum designers, text book writers, and class-room teachers because, directly or indirectly these perspectives influences the theories or concepts of instructional material developers and the methods used by class-room teachers. And the need of paradigm shift form positivist to constructivist was: a constructivist learning is an intervention where contextualized activities (tasks) are used to provide learners with an opportunity to discover and collaboratively construct meaning as the intervention unfolds. Learners are respected as unique individuals, and teachers act as facilitators rather than as teachers.

2.2 Types and Classification of Instructional Approach

Different researchers use different types of classifications when referring to instructional methods. Regarding this, ICDR (1999) uses the following major types of classification of learning or teaching method.

- Teacher-centered versus student-centered/active learning method

- Direct instruction versus indirect instruction strategies;
- Conventional versus non-conventional methods, or
- Traditional versus modern (non-traditional) methods (p. 68).

Though these classifications of instructional methods use different terminologies, mostly they have a similar conceptual frame of reference, i.e., the degree of students' participation in the instruction process is the common basis of all these classifications. For this effect, the researcher will focus on teacher-centered versus student-centered/active learning method as a frame work for this research study.

2.2.1 Distinguishing Student-Centered/Active Learning from Teacher-Centered

For many years two seemingly contradictory terms "teacher-centered" teaching and "student-centered" teaching have dominated the literature on teaching. In essence, these views describe different approach to teaching stemming from conflicting sets of assumptions about student learning (Ann, 1992, p. 543).

When we compare the teacher-centered with the new and interactive learning approaches, the new model, active learning is important and effective in many of its dimensions.

Out comes of approach to learning has been driving educators in response to demands for greater accountability and as a vehicle for breaking with traditional idea about how to teach students. It represents a change in emphasis from 'teaching 'to 'learning' by the adoption of a student-centered approach in contrast to traditional teacher-centered view point. An out comes approach has the potential to provide a frame work for teaching and learning that is student focused and relevant. Contrary to traditional input based approach, which simply cares how much percentage of students pass the course, out come based approach stresses how students obtain the capabilities that they will need in the highly competitive real world (Chang and Wang, 2005 in Yohannes, 2006, p. 3).

Furthermore, ICDR (1999, p. 63); Ramsden, (1994) cited in Ketteridge and Marshal (2004, p. 22) distinguish that teacher-centered education, the teacher is the center of class-room

activity. The teacher is thinking to hold most of the knowledge necessary for the students to be successful. In this model teacher uses “chalk and talk” or other methods of teaching in which the teacher is active and the students passive. When the teacher asks questions the students are usually expected to recall or repeat information from the lecture or from the text books. On the other hand, student-centered or active learning education, the students are not passive recipients of knowledge; they are active learners. They are not only receive information from lectures and books they also collect information, record it systematically, discuss it, compare it, analyze it, draw conclusions from it and communicate about it. When they are given information and facts from their or their text books, they are asked to do some thing active and creative with the information-analyze it, think about it, discuss it, make charts or picture which show the information in different ways, make report on it. In student-centered class room, the teacher is not less important. In fact, the teacher is much more important to organize the activities, help, check their progress, facilitate and give feedback to that all students are learning.

Supporting the above idea, Knowlton (2000) cited in Lejeune (2001, p. 3) stated student-centered and teacher-centered practices are often viewed as representing opposite ends of the teaching philosophy spectrum. Student-centered practices are said to have an underling constructivist philosophy while the teacher-centered approach is grounded on the positivist philosophy. The student-centered approach is build up on three constructivist notions. (1). Knowledge acquisition is an active process, where the learners make sense of the world rather than merely accumulating facts. (2). Learners internalize new knowledge in personal ways by creating relation ships to the existing knowledge, thus enabling application. (3). Knowledge has a cultural aspect that reviews on collaboration and social negotiation to give shared meanings (Grabinger, 1996 in Lejeune 2001, p. 3). In traditional instruction the teacher’s primary functions are lecturing, designing assignments and tests and grading while in active learning the teacher still has these functions, but also provides students opportunities to learn independently and from one an other and coaches then in the skills they need to do so effectively.

Think of the difference between a jar that is filled and a lamp that is lit. In the former case, liquid is poured into an empty vessel–apt metaphors for the traditional educational paradigm in which students sits passively in a class-room and absorb the knowledge transmitted by an expert. A growing body of research has made it clear, however, that the overall quality of teaching and learning is improved when students have ample opportunities to clarify, question, apply, and consolidate new knowledge. In this case, instructors or teachers create opportunities for students to engage new material, serving as guides to help them understand and apply information. They help "light the lamp" of student learning (Kember, 2009, p. 5)

In short, we have already noted there are two main strategies. The first of these is teacher-centered instruction, with the teacher mostly telling and the student passively listening or taking notes. This approach emphasizes the transfer of basic information for students to memorize and reproduce. It answers the questions ‘what’ and ‘how’ only. With the explosion of knowledge in most disciplines, this approach tends to lead to shallow learning and time problems. The second general strategy is student-centered, with the teacher helping the learners to find out by posing questions, guiding, indicating sources of information and sharing ideas, problems and solutions. Here one searches for meaning and attempts to answer the question ‘why’ (ICDR, 1999). For more precise the main difference between student-centered and teacher-centered is summarized below.

Table 1: Differences Between old and New Models

Old model	**New model**
Rote(passive) leaning	Active learning
Positivist epistemology	Constructivist epistemology
Knowledge: the world is made up of fixed facts or information; we divide knowledge strictly according to subject areas derived from academic disciplines in higher education.	Knowledge: the world is made up of much information which used actively in order to create knowledge; knowledge dependents on interpretation; the world of knowledge is seen as intergraded and holistic.
Learning: memorizing this information and repeating it accurately	Learning: discovering, analysis, problem solving, evaluating to create understanding and often new knowledge
The learner learns facts, how to memorize facts and information	The learner learns how to learn, how to think, how to use facts and information
The learner uses lower thinking skills	The learner uses higher order thinking skills

(Source: Lue, 1998 in ICDR 1999, p. 65)

Table 2: Difference between teacher-centered and learner-centered

Focus	Teacher-centered	Learner-centered
Approach	Expository: 'talk and chalk'	Discovery: dialoged and inquiry"
Purpose	Transfer of information	Development of individual potential
Rational	Education as technology	Education as liberating process
Strategy	Surface learning	Deep learning
Teaching link	Direct	Indirect
Teacher role	Authoritative: 'all knowing expert'	Facilitative: 'developer'
Teacher activity	Telling, checking, correcting	Guiding on route, resources, interpretations
Student role	Rote learning	Self-direction for meaning
Student activity	Listening, note-taking	Exploring, reflecting, questioning
Methods	Lecture, seminars, demonstrations	Discussions, simulations, problem-solving

(Source: Adapted from Ramsden, 1992, p. 163)

2.2.2 Definition and Concept or Indicators of Active Learning

Active learning is defined by many researchers in different ways in similar concept. For instance McCombs and Whisler (1997:9) defined as:

> *The perspective that a focus on individual learners (their heredity, experiences, perspectives, backgrounds, talents, interests, capacities, and needs) with a focus on learning (the best available knowledge about learning and how it occurs and about teaching practice that are most effective in promoting the highest levels of motivation, learning, and achievement for all learners (p.9).*

In more comprehensive definitions Lea, et al (2003) cited in O'Neill and McMahon (2005) summarized that the student-centered learning in the followings ways:

- the reliance on active rather than passive learning,
- an emphasis on deep learning and understanding,
- increased responsibility and accountability on the part of the student,
- an increased sense of autonomy in the learner
- mutual respect within the learner teacher relationship,
- an interdependence between teacher and learner,

- and a reflexive approach to the teaching and learning process on the part of both teacher and learner (p.2).

Learning is not a spectator sport. Students do not learn much just by sitting in class listening to teachers, memorizing prepackaged assignments, and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences, and apply it to their daily lives. They must make what they learn part of themselves (Chickening & Gamson, 1997, p. 10).

Indicator of Active Learning

To implement the active learning approach in effective way, the implementer should be familiarized with the indicators of active learning how to perform and measure activities in class-room. Regarding this point, Jones, Valdez, Nowakowski and Rasmussen, (1994) cited in USAID, (2007) developed eight indicators of active learning which they believe can act as "compass" for reforming instruction. The first of these indicators refers to success in active learning. Success the active learning from their perspective involves students' self-regulated ability to define their own learning and evaluate their own achievement. It also includes students' joy in learning and their collaborative efforts. The second indicator refers to asks in active learning. It is said task needs to be challenging (to be done in collaboration with peers, mentors family), authentic (relevant to home and work place) and multidisciplinary (involves problem solving and projects. in active) (pp. 25-26).

The third indicator is assessment of active learning. Thus assessment involves presenting students with authentic tasks. Projects or investigation and then observing, interviewing and examine their presentation and artifacts to assess what the actually know and can do.

Thus an assessment is called performance based and it is generative for students are involved in generating their own performance criteria. The fourth indicator refers to instructional and strategies. In this part the most powerful models of active learning described as interactive to show the active role of the learner and the generative and constructivist character of the process. Some strategies for active learning are given as individual and group summarizing

means of exploring multiple perspectives, techniques for building up on prior knowledge, brainstorming, Socratic dialogue, problem-solving process, and team teaching.

The fifth indicator concerns the learning context of active leaning. It has been argued that for active learning to take place the class room must be conceived of as knowledge-building learning community. Thus context is chiefly characterized as collaborative, allowing value diversity and multiple perspectives. The sixth indicator is grouping for active learning. It is mentioned that collaborative active learning requires forming small groups or team of two or more students with in a class room. Heterogeneous (different sexes, cultures, abilities, age socioeconomic background) and flexible grouping (in relation to specific instructional purpose) are equitable means to increased learning opportunities. The seventh indicator refers to teacher roles. It has been indicated that role of the teachers in the class-room shifted from the primary role of information give to that of facilitator, guide and learner. As facilitator, the teacher provides rich environments and learning experience needed for collaborative study. The teacher is also required as a guide, a role that in corporate meditation, modeling and coaching. Often a teacher is also a co-learner and co-investigator with students. Criteria eight refers to students' role in active learning. It has been noted that students are explorers. This includes students' interaction with other people and the physical world, their reflection up on their discoveries, their apprenticeship and the fact they become teachers and producers of knowledge.

2.2.3 The Importance of Active Learning

The importance of active learning approach in education is perhaps highly significant As Silberman (1996) have modified and explained the wisdom of Confucius in to what he call the active learning philosophy. "What I hear, I forget. What I hear and I see, I remember a little. What I hear, see, and ask questions about or discuss with some one else, I begin to understand. What I hear, see, discuss, and do, I acquire knowledge and skill. What I teach to another, I master". These five simple statements speak volumes about the need of active learning (p.1).

According, Bonwell and Eison (1991) active learning leads to independence through developing meet cognition and motivation; this in turn increases success, thus sounds and rules he has covered, giving him confidence that the materials are within his capability.

ICDR (1999) insists the important aspect of this new model of teaching that the learning that goes on in the class-room is 'active' in relation the following basic points:

- Teaching is effectively only when students are learning.
- Learning is effective when it is meaningful to students.
- Leaning is meaningful only when students can use it, connect it to their lives, or actively participate in it.
- Memorizing facts and bits of knowledge alone is not effective learning.
- We damage young learners when we teach only by giving facts; we are preventing meaningful learning from taking place.
- Learning facts alone does prepare students to understand their environment or function effectively in it; it does not prepare them to understand and participate in a complex world.
- We must prepare students to solve problems and to use information from their environment and other sources to make a better life for themselves, their families and their communities.
- We must encourage students to learn facts, but also to investigate, to understand the world around them, to analyze, draw conclusion and communicate – in other words, to think.
- We must encourage students to use higher order thinking skills (analyzing, comparing, drawing conclusions) and move away from the exclusive use of lower order thinking skills (memorizing).
- We must encourage students to communicate effectively about what they are doing and what they are learning.
- When we give students facts and knowledge to memorize, we must encourage them to use it actively and critically and connect it to the world they know (p. 65-66).

Further more, Ellis (2007); McCombs and Whisler(1997) explain the need and purpose of active learning as a means of enhancing motivation to learn, promoting independent and critical learning skills, improves attitudes to teachers, school and school subjects. Moreover, it enhancing self confidence and self esteem, leads to higher achievement and better retention, strengthen growth in moral and cognitive reasoning, develops a habit of working collectively and respective each other, make creative and problem solve citizens, etc.

In this effect, the use of active learning approach is many and diversified, but the basic contribution is that if students are actively involved in the learning, they will better able to understand new concepts and will learn more which is applicable, long lasting and meaningful in their lives.

2.2.4. Role of Teacher and Student in Active Learning Approach

> *"In his teaching, the wise man guides his students but does not them along: he urges them to go forward and does not suppress them: he opens the way but does not take them to the place --- If his students are encourage to think for themselves, we may call the man a good teacher"* (Ramsden, 1992, p. 158**) .**

Broadly speaking, many educators have strictly underlined that teacher play a crucial role in the implementation of active learning. As Kyriacou, (1998) the teacher's task in this approach is to use class room methods that encourage the learner to be as active as possible by analyzing and interpreting knowledge through the use of higher-order thinking skills, active learning, problem solving and communication based methods in their teaching.

There are many optional to the teacher in the student-centered class-room in which the teacher takes on the role of the manager or facilitator of learning. The teacher can act as a monitor to ensure that students are proceeding in the correct way and in the right direction helping students to prioritize and organize their learning or perhaps participate as a group member if the students are losing track of their objectives. The teacher can suggest sources of consultation encourage and support the learning process, guide and direct as required and highly important provide critical feed back, both positive and negative (Kyriacou, 1998).

In the long run, the implementation of effective teaching strategies is one of the basic criteria to be an effective teacher. If teachers are on the position to help students to learn, they must be to select and use teaching strategies that produce learning. In any setting of school system, teachers play a paramount role in student learning. No matter how good the curriculum may be organized, and whether or not teaching materials are available, ultimately the quality of education rests mainly on the methodology of instruction employed by the teachers. McCombs and Whisler (1997) stated, "Curriculum and content are important but not exclusive factors in students' desired motivation, learning, and achievement. What is as important curriculum, content, and fundamental to the learning of curriculum and content, is attention to meeting individual learner needs" mainly by the class room teacher who is in charge of implementation the curriculum and influencing student learning.

Active learning can not occur with out student participation. There are various ways to structure discussion and obtain responses from students at any time during a class. Some are especially suitable when time is limited or participation needs to be persuaded (p. 2).

Studies carried out to investigate the role of students' active learning involvement in learning demonstrated that the learners' active involvement has a bearing on the level of motivation they possess, their perseverance, self-efficacy, and commitment to the task at hand which further enhances the degree of learning (Tan, 2001; McCombs & Whisler, 1997; Lambert & McCombs, 1998 in Yalew, 2004, p. 19).

In general, in active learning approach, the learner has the responsibility for his or her learning, the content has relevance and meaning for the learner, the involvement and participation of the learner in learning is mandatory and the teacher acts as facilitator than as a controller. In other word, in active learning, the teacher does not regard himself as a guardian of knowledge. His role is rather to facilitate the process of learning. In active learning, the students are not passive recipients of knowledge rather they are active learners. They are not only receiving information from lectures and books, they also rearrange systematically, discuss, compare, analyze, draw conclusions and communicate.

2.2.5 Research Findings and Criticism on Active Learning Strategy

Different researchers found that student-centered is better than the teacher-centered methods if the method practiced properly. Regarding this, Guthrie et al (2004) cited in *O'Neill* and McMahon (2005) compared three instructional methods for third-grade reading: a traditional approach, a strategies instruction only approach, and an approach with strategies instruction and constructivist motivation techniques including student choices, collaboration, and hands-on activities. The constructivist approach, called Concept-Oriented Reading Instruction, resulted in better student reading comprehension, cognitive strategies, and motivation.

Moreover, Kim(2004) cited in Kember (2009) found that using constructivist teaching methods for sixth graders resulted in better student achievement than traditional teaching methods. This study also found that students preferred constructivist methods over traditional ones. However, Kim did not find any difference in student self-concept or learning strategies between those taught by constructivist or traditional methods.

In connection the above idea, Dogru and Kalender (2006) cited in Kember, (2009) compared science class-rooms using traditional teacher-centered approaches to those using student-centered, constructivist methods. In their initial test of student performance immediately following the lessons, they found no significant difference between traditional and constructivist methods. However, in the follow-up assessment 15 days later, students who learned through constructivist methods showed better retention of knowledge than those who learned through traditional methods.

Criticisms of Educational Constructivism

What ever the student-centered is effective in its practiced, constructivism is undervalued by traditional philosophers for its short coming as it is not preside over effective result. In relation to this trait active learning or student-centered approach is criticized for its effectiveness.

Kirschner et al. (2004) in *O'Neill* and McMahon (2005) describe why they group a series of seemingly disparate learning theories (Discovery, Problem-Based, Experiential, and Inquiry-

Based learning). The reasoning for this grouping is because each learning theory promotes the same constructivist teaching technique "learning by doing." While they argue "learning by doing" is useful for more knowledgeable learners, they argue this constructivist teaching technique is not useful for **novices** and it promotes behavioral activity too early in the learning process, when learners should be cognitively active (p. 12).

Moreover, student-centered course must obviously have the support of the administrative system of the host institutions in terms of funding arrangements and day-to-day operations of the course in matters such as secretarial support, correspondence, telephone calls and access to special facilities (library, computer, laboratory facilities, etc).The host institution must also make appropriate arrangements for students' assessment. All of these can pose considerable logistical problems (Biadgelign, 2010, p.93).

Generally speaking, on behave of different findings student-centered methods have repeatedly been shown to be superior to the traditional teacher-centered approach to instruction, a conclusion that applies whether the assessed outcome is short-term mastery, long-term retention, or depth of understanding of course material, acquisition of critical thinking or creative problem-solving skills, formation of positive attitudes toward the subject being taught, or level of confidence in knowledge or skills.

2.2.6 Challenges and Opportunities for Implementing Active Learning

2.2.6.1 Opportunities to Enhance Active Learning

It is evident from the conceptions that active leaning has many opportunities to implement in effective manner. Regarding this issue, Behar(1994); Pratt (1980) suggest that the preparation of flow chart and syllabus, the development of text book, teachers training and instructional strategies are important aspect as an opportunities to enhance active learning.

Goodlad, (1984) said that able teachers, under favorable circumstance, do make an important differences in students' learning. Teachers constitute the one single element of schooling

most influencing students' learning and can be said that teachers are key factors in the schooling process.

In Ethiopia Education and Training Policy it has mentioned that the primary reason for the poor quality of education in the past was the training as well as the over all attitude towards teachers (MOE, 2002). In order to correct this deplorable situation profiles that teachers at any level must fit has been determined; teacher training intuitions have been strengthened and enriched; and teacher advancement or promotion scales have been set and are under implementation.

An education system will not succeed in attaining its objectives only for changes in the curriculum or in (the methods of) teaching training. The origination and management (direction) of the educational system must be based on democratic principles. Thus, the ETP implementation outlines a strategy for the establishment of boards and committees composed of parents, teachers, community and administrative representatives to direct and participate in the training and employment of teachers, budget allocation and implementation, etc. These all aspects have served as an opportunity to facilitate the active leaning.

Beside this, understanding of the policy in general helps as an opportunity to implement active leaning approach in effective way. Solomon (2008) states that as there are three subcomponents to deal with under the umbrella of the policy message: the substance of a policy, the means specified for putting a policy in to effect, and the way in which the substance and the means are communicated. Therefore, the understanding of both the goals and the means of innovation by users crucial for implementation, because the greater the understanding of the goals and what is to be gained from their adoption, the greater the success of implementation.

Ornstein and Hunkins (1998) elaborated the successful implementation of curriculum results from careful planning, which in turn focuses on three factors: people, program, and organization. In other word, if an innovation or reform is to be fully implemented, at least the conditions of these three factors should be changed. Put differently, if implementation is to

occur, change would likely occur in curriculum materials, teaching practice, organizational structure, and belief or understanding about the curriculum and learning practice (p.292).

In Short, Policy, curriculum, syllables, students' text, teaching and academic programs, students, teacher training, facilities equipment, etc, these all are aspects have served as an opportunity to identify for the performance indicators of active learning.

2.2.6.2 Challenges

Opportunities for enhance active learning in elementary schools are not with out challenges. As it is common that like any educational issue in the teaching-learning process, active learning too may come across constraints during its implementation in the real class-room condition. Most scholars like AED/BESO (2003, p.13); Bonwell and Eison, (1991, p. 31); Ellis (2007, p.34) point out these challenges associates with:

- Inability of curriculum to promote active learning,
- Lack of adequate resources
- Inadequacy of teachers' training
- Lack of teachers' commitment
- Unfavorable class room(fixed furniture space, etc)
- Absence of community and parents participation
- Learners' cultural and social back ground
- Teachers' work load
- Lack of incentives for teacher
- Learners' assessment method/ mechanism.

Similarly, O'Neill and McMahon (2005) mentioned six commonly obstacles to using active learning strategies include:

- You cannot cover as much course content in the time available;
- Devising active learning strategies takes too much pre-class preparation;
- Large class sizes prevents implementation of active learning strategies;
- .Most instructors think of themselves as being good lecturers;
- There is a lack of materials or equipment needed to support active learning approaches;

- Students resist non-lecture approaches (p. 3).

Havelock and Huberman (1977) discussing the numerous and serious problems encountering implementation list the following as out standing one: strong leadership, insufficiencies in equipment, attitude, materials, trained personnel and facilities, resistance, previous training orientation, problems of coordination, delays, confusion and too rapid implementation. It is hoped that this particular research will find out which of the factors are more influential in the Ethiopian context and specifically in North Western zone of Tigray.

2.2.6.2.1 Attitudes on Active Learning

For successful implementation of any new perspective, including active learning model, positive attitude in the issues and skills in the area are very important. For the most part, the underlying ideas, concepts, merits and demerits of the new approach should clearly understood by teachers, students, directors, parents, decision-makers and the community at large. In this review, the researcher only, stresses on the teachers and students.

Teachers' Attitude

Teachers' attitude is important aspects in the educational process. The attitudes affect the ways they present their lessons to their students, the type of instructional methodologies they employ, and students' learning outcome. Jonassen and Grabowski (1993) in Yalew (2004) stated that "learning out comes are affected by the form of instruction. So, different instructional activities will differentially affected learning out comes."(p.17)

It is critical that teachers or instructors have a through underlining of the nature and characteristics of the appropriate teaching-learning methods to be used in conjunction with curricular materials. Because, although to a certain extent some decisions may be determined for teachers by official syllabi, student's text book or teacher's guide, it is the teacher who is the ultimate implementer of the curricular materials (ICDR, 1999). But, unfortunately, knowingly or unknowingly, some teachers discourage active, student-centered learning with the ground that it brings an extra demand in the planning and preparation of lessons (p.60).

“Some teachers feel as it is bounded by over-crowded subject matter and thus pressurized by the limited time they have to teach. The belief persist that active learning takes too much time and thus covering, the portion is difficult or impossible. Even, they come to the conclusion that active leaning may be nice in theory but unrealistic in practice.” These all show that there have been no enough and concrete perception about how to instant active learning in class room, which may lead to negative reaction (Capel et al, 1995, pp. 229-230).

Students’ Attitude

Not only teachers’ attitude but also students’ views to be taught by active learning methods have an impact for proper implementation of active learning. In this regard, Dary and Terry (1993); Silberman (1996) have stressed the importance of students’ “past experience”, which is a transformative rather than passive accumulation of knowledge. They notice that unless learners consider the implications of the ideas for them in their own lives and decide to act, know and believe in new way; they are likely to adopt a passive acquiescence to the teachers’ knowledge structure. And ultimately, this passive students’ learning has not made a difference because it has been transformative and at best resulted in some accretion of knowledge. Thus, it is possible to suggest that active learning approach seeks the emancipation of learners from the old belief that has dominated methods of teaching over the last century (p.88 & p.8).

In addition to this, in spit of all contributions of active learning methods, the students may not have “appropriate perception and have developed negative attitudes” from various reasons. For example, students may look shy and uncooperative at the beginning of student-centered class-room activities. Because, students are accustomed to the traditional methods where they are expected to listen attentively that they and they try to memorize what have learned for the purpose of examination. This discloses that they do not try and have no access to use their prior experience. They do not challenge their old assumptions and creating new meaning or perspectives that are more inclusive, interactive and open to alternative views, which can emancipate them from strong belief on stimulus-response mechanisms (Dary & Terry, 1993, p.93).

In connection with his, a study by Weimer, (2002) cited in Ambissa (2009) identified reasons for students' lack of interest in (or even resisting) active learning approach. These are:

i. Learner-centered approaches are more work. When the teacher does not summarize the important point in the chapter, the students will have to read for themselves.
ii. Learner-centered approaches are more threatening. Students who lack confidence in them selves as learners become filled with anxiety at the prospect of becoming responsible for decisions that might be wrong. Students who are not used to questions with no single, authority-approved right answer are fearful of being wrong.
iii. Learner-centered approaches may be beyond students. Some students' lack of self-confidence or intellectual immaturity may prevent their accepting responsibility for their own learning.
iv. Students procrastinate, seek easy options, and prefer extra credit points over deep learning (p.80).

Briefly, student-centered teaching requires particular personal attitudes from the facilitator as well as at least a certain degree of openness from the side of the curriculum as well as the student.

Teachers' Training

The way teachers trained can strongly affect the whole educational process, particularly the implementation of active learning method. Regarding to this, it is said that able teachers, under favorable circumstance, do make an important differences in students' learning (Goodlad, 1984). Teachers constitute the one single element of schooling most influencing students' learning and can be said that teachers are key factors in the schooling process.

For this purpose and reflect the essence of their profession, teachers should be properly trained. According to Tilahun(2002) states :

> *Untrained teachers in most case are found to be in active. This is practically observed in the earlier days, with primary schools teachers directly employed and not given in-service training or is not exposed to work shops and seminars. Such teachers even if they are provide with best kind of materials and excellent curriculum they may remain ineffective and un likely are successful (p.75).*

Thus, to implement the active learning method proper, pre-service teachers training become very important. During their stay on the training center, teachers have to have a relevant and balanced professional and academic education. “If teachers are properly trained and implement the skills they acquire in their professional career, they are likely to influence their student. In teacher training, the knowledge and skills teachers acquire enable them to help their students effectively.” Successful teachers are those who manifest skill such as motivating students rather than forcing, relating materials in class to learners experience and social needs, recognizing individual needs of pupils, co-operating with the whole staff in solving school problems (Tilahun, 2002, pp. 74-75).

Derebssa (2006) in his research findings indicated that if we want teachers to be confident and innovative users of active learning, we must provide teachers with the appropriate training, the time and the facilities they need. The government has made a good start in demanding teachers to be innovative, but must also continue with empowering teachers with the necessary skills they require for proper implementation of interactive teaching and learning. What teachers need now are effective peer training communities on-line and face to face so that the professionals can learn together. Through in-service training, teachers should start to Pool their talents and expertise and agree to roll up their sleeves and get their hands dirty. Learning can be painful. The profession has to triumph over the pain barrier if teachers are to make a real contribution to this century’s achievements in universal quality education (p.18).

To this effect, in the Ethiopian Education and Training policy it was mentioned that the primary reason for the poor quality of education in the past was the training as well as the overall attitude to wards teachers (MOE, 2002). In order to correct this deplorable situation profiles that teachers at every level must fit has been determined; teacher training instructions have been strengthened and enriched; and teacher advancement or promotion scales have been set and are under implementation.

2.2.6.2.2 Facilities and Resources

Instructional Materials

The importance of teaching and learning materials can not overemphasize. It is clear that the point of a teacher as well as of the learner that effective teaching and learning can not take place with out them. Namasthaka et al (2000) explain the advantage of instructional materials as follows,

> *Teaching and learning materials help the teacher to explain abstract ideas, motivate learners, arouse their interest and develop psychomotor skills. In the end, learners cultivate interest in the subjects, develop various skills and get an understanding of concepts. As a result, active-learning requires textbooks, library books, wall charts, notebooks, maps, and if possible computers and network connections (P 98).*

As Dale (1969) is cited in Amare (1995) instructional materials has the following pedagogical use:

1) Facilitate active learning 2). Encourage creative thinking 3).Effective students' skill development 4). Over come the limitation of time and space 5). Concretize abstract experience 6). Create the access to the invisible reliable 7). Teach and entertain 8). Related theory with practice 9). Make learning more functional by increasing retention 10). Assist learning of a method of learning in the field 11). Encourage responsibility (P.55).

Though the instructional materials have these advantageous, selection of inappropriate materials may lead to the redundant directions. There fore, to minimize such problem the teacher must be consider different variables. On the issue of this, Firdissa (2005) suggested that selection of a right instructional method for a particular lesson depends on many things. Among them are: "the age and developmental level of the students, what the students already know, and what they need to know to succeed in the lesson. The subject matter content, the lesson-situation, the objective of the lesson; the available people, time, space and material resources, and the physical setting also need to be considered" (P.55).

To this effect, to prepare sufficient instructional materials, it is quite evident that the school should be display financial support. Based on the above facts the active learning method of teaching can be highly affected or facilitated by the shortage or availability of instructional materials. Thus instructional materials are one of the most important factors that challenge the application of active learning method.

Giving Supervision and Support to Teacher

Teachers need encourage, guidance and direction in their teaching. Some times they do not know whether their teaching is inconsistent with the Ministry of Education standards or not. Supervision is important because it reinforces the required Ministry of Education standards and it brings uniformity in curriculum implementation. It also helps to provide a feedback to teachers. It is there fore important that "supervision should be done regularly in schools" (Namathaka, 2000, P.149).

As result, "administrators actively support the delivery of student-centered learning by being instructional leaders, spending time in the class room managing the program, giving expert advice and evaluating." Systematic and on going professional development for teachers which addresses the skills in curriculum, teaching, technology and class room management necessary to implement the program (Dimmock, 2000, P.276).

Class-room Condition

Class-room is the process of organizing and conducting a class so that "it is efficient and effective and results in maximum student learning." In other words, it is the combination of teacher strategies and class-room organization factors that leads to productive learning environment. Broadly speaking, well manage class-room situation ensure that an atmosphere is generate where the most effective learning takes place for all of the students (Kyriacou, 1998, p. 64; Biadgelign, 2010, P.323).

Regarding this, Silberman (1996) states the physical environment in a class-room can make or break active learning. No one set up is idea, but there are many options to choose from. The "interior decorating" of active learning is fun and challenging (especially when the

furniture is less than ideal). In some cases, furniture can easily rearranged to create different sets ups. Even traditional desks can be grouped together to form tables and other arrangements. You will also find suggestions on how to utilize even the most traditional class -room environments for active learning, using U shape, team style, conference table, circle, group on group, workstation, breakout groupings, chevron arrangement, traditional class-room, and auditorium (PP. 9-10).

Teachers' and learners' perception of a large or small class is determined not only by number of students but by several additional factors. These include: physical conditions in the class-room such as "the amount of space available; teaching focus; teaching methodology; and the availability of resources" (Fauzia, et al. 200, P.137).

2.2.7 Mitigating the Challenges while Practicing the Active Learning Approaches

Many and useful suggestions have made to minimize these challenges and to enhance active learning. In this line,(AED/BESOII, 2003) suggests good curriculum with active leaning approach, well trained teachers(pre-service, In-service), availability of basic resource and facilities, favorable school environment, community and parent participation, learners' readiness, teachers' commitment, school intuition (stake holders) linkage (partner ship), school leader ship and supervisory services, teachers' collegial support (formal and informal approaches), as means of minimizing to constraint in implementing active learning approach.

In connection the above idea, Bonwell and Eison (1991) suggests the key points to success active learning as follows:

- Start small and be brief
- Develop a plan for an active learning activity, try it out, collect feed back, then modify and try it again.
- Start from the first day of class
- Always try the question or task your self first: when ever possible, also try it on a colleague

- Be explicit with students about why you are doing this and what you know about the learning process.
- Negotiate a single to stop talking
- Randomly call on pairs to share
- Find a colleague or two to plan with (and perhaps teach with) while you are implementing active learning activities.
- Continue learning work shops, reading, and practice (P.28).

2.2.8 Experience of Active learning in Ethiopia Education Context

The curriculum reform initiated in 1994 in Ethiopia after the adoption the New Education and Training Policy has led to extensive changes in education. One of the changes in the paradigm shift in the model of teaching and learning which involves the shift from rote learning to active learning and the shift from a linear to an integrated curriculum (Lue, 1998, in ICDR, 1999).This change has brought a major paradigm shift in our thinking about education and the meaning of knowledge and learning. In relation to instructional methods, the understanding ideas like active learning approach, student-center method, problem solving, discovery learning, student sensitive learning, the use of higher-order thinking skills, etc. have been introduced through this reform (p.65).

Similarly, in the teacher education systems there have been continual changes in the curriculum and teacher's profile since the new educational reform in the country. Particularly, at present, the teacher education program is guided by the TESO document (MOE, 2003). This document states that in the teacher education rote, passive learning has to be replaced with active learner-focused education. It advocates a teacher education system that develops and inculcates higher-order thinking skills in graduates and it emphasizes, as teachers are essentially agents for positive social change. Thus, the paradigm shift in teacher education is expecting to exercise teaching which makes changes in ideas and directly in people's lives that takes the real world into the class-room and brings teachers out in to the real world.

In addition, this document strongly criticize the previous teacher education system, as traditional where the subject content has been treated as a separate entity and the practice of teaching and instructional methods have been treated in a theoretical basis. As a result, according to the document, it has produced teachers who although were grounded in their individual subject knowledge are not necessarily good at teaching in schools using active learning methods because in the past, the trends was to emphasize the knowledge or contents, to the neglect of methods. And their negligence can no longer be justified, particularly owning to the demanding nature of problem-solving skills required by the New Education and Training Policy.

Thus, its intention is to prepare teacher who can confidently promote active learning and the development of problem-solving skill through a learner-centered approach, using curriculum where content and methods are integrated. In this assumption, teachers must be able to use a range of teaching strategies including active, student-centered learning; interactive teaching and independent study and thus, be able to select strategies according to students' needs, topic under focus and subject content.

In line with this, the New Education and Training policy of Ethiopia requires the development of the physical and mental potential and problem-solving capacity of individuals. It is expected to cultivate the cognitive, creative, productive and appreciative potential of citizens by appropriately relating education to environmental and societal needs (TGE, 1994, P.4). Thus, teacher in educations in particular need to model class-room teaching skills and methods that reflect and go in line with the goals of the New Education and Training Policy. In real situation, however, there is an epistemological separation between theory and practice. Because, mostly, it seems teacher's performance in teaching skills is not adequate as the result of their inadequate training. Of course, teacher educators or trainers where less dogmatic about curriculum modification and active methods in the classroom: although their standing in the classroom indicated other wise. Because teacher's pedagogical positions are quite traditional; giving great emphasis to presentation of knowledge and pupils' abilities to think in abstract terms than concrete ways. Besides this, it should be known that the narrow meaning of pedagogy, which stresses on the science or

techniques of teaching, has to be substantiated by a systematic procedure for advancing learners, to act in ways that empower learners than teachers (Smyth, 1987, P.2).

Though Education and Training policy advocated active learning strategies and tried its bests, in practice some research findings have shown that the teacher-centered method may predominate in most cases of Colleges, Universities and Primary schools. For instance, Wendmagegnehu(2006); Lemma(2006) concluded that the level of utilization of active learning pedagogy was found very poor due to different reasons.

Moreover, Yohannes(2006) explained that the teaching and learning with the Ethiopian higher education is presently very teacher-led and curriculum based that focuses in the contents to be covered. Course objectives generally cover knowledge but often not skills and attitude. They do not specify employability qualities to be developed such as communication, report writing and working as part of a team. The instructors usually use lecture notes that mostly work in a "chalk and talk" situation (p.11).

2.2.9 Using different Form of Active Learning

To be effective, teachers must use different active leaning methods. Because, current thinking and practice in education highly advocates the need to actively involve the learners in different active learning techniques. To this end, there are a wide range of methods and techniques for active learning. Some of the methods of active learning are explained below.

Discussion/ Focus Group –Use of focus groups or discussion is a strategy which a teacher uses to initiate interaction between the teacher and the learner and also among the learners themselves. Its purpose is to elicit views, ideas and information in order to reach an agreement. The discussions can be conducted through a group, debate, forum or panel. Guide lines for the different methods have to be followed to ensure effective use.

When learners participate in discussions, they learn to: develop the ability to think critically, construct ideas logically, and express themselves clearly. Participants analyze views, ideas, facts and information to reach an agreement. When properly used, discussions assist the teacher to assess the learners' ability as their ideas, self esteem and assertiveness to express their understanding. It is important to know that not all topics can be used for discussion.

Interesting topics that provoke learners' imagination are preferable (Namathaka, et al 2000, P.55).

Problem Solving: It is a whole way of behaving, away of attacking problem situation of mobilizing pertinent thinking process and arriving at solution for action. Problem-solving is essentially a search for solution to situations that have novel/new or unknown elements in them (Azeb, 1995 cited in Biadgelign, 2010, P. 248).

Demonstration Methods: It is important that teachers should use the demonstration methods in their teaching for it allows the pupils to see and hear what they are learning before trying it themselves. This method is used to illustrate concepts, principles and skills that can not be easily explained. However, teachers need to follow proper guidelines when using the demonstration method. They should plan and prepare for the demonstration thoroughly. At the end of the activity they should review main points (Namathaka, et al, 2000, P. 37).

Role Playing – As a learning strategy, role play selects some pupils to acts out a situation, condition or circumstance in order to achieve an objective practically. Role play could be structured or unstructured and its focus is on roles and not them. Unlike drama, it is not formalized nor does not require costumes or make up. It aims at achieving an immediate intended out come.

A part from leaning practical and interesting, it also helps learners to be observant of the world around them in order to accurately depict what roles demand. A teacher must understand the guidelines for role play strategy to use it effectively in the class-room (Namathaka, et al, 2000, P. 50).

Panel Discussions - Panel discussions are especially useful when students are asked to give class presentations or reports as a way of including the entire class in the presentation. Student groups are assigned a topic to research and asked to prepare presentations. Each panelist is then expected to make a very short presentation, before the floor is opened to questions from "the audience". The key to success is to choose topics carefully and to give students sufficient direction to ensure that they are well-prepared for their presentations. You might also want to prepare the "audience", by assigning them various roles. For example, if

students are presenting the results of their research into several forms of energy, you might have some of the other students role play as concerned environmentalists, transportation officials, commuters, and so forth (Namathaka, et al, 2000, P. 37).

Brainstorming: In this activities students write down every thing they know or think about a given topic. Even if these ideas are strange and unconnected, it does not that matter as these ideas can be disregarded later. This can be done individually, in pairs, small groups or as a whole class with teacher or students recording the ideas on the board. It can be used as away of finding out what the students already know on a subject before you start teaching or as a review activity (HDP, 2004, P. 317).

Project Method: A project is a natural, life like activity involving the investigation and solving of problems by individuals or groups of students. Ideally, project work should consist of a task in which a student sets out to achieve some definite of goal personal value.

It is best if students formulate their own projects plans and evaluate the whole project. But teachers should help their students in selecting project work, planning the project, or in providing related reading materials and so on. It is also important for students that every student should formulate a project completely on her or his own; then, only approval need be given by the student before the students attempts to do it. To this end, definite criteria should be developed by teachers to guide the students' effort as well as to evaluate and approve project plans before any attempt by the students (ICDR, 1999, PP.92-93).

Generally, as teachers, they all have their own preferences which they learn: their preference affects the way in which they teach others. It is important to remember that good teaching needs to address the learning preferences of their students; the same methods does not work for every students; therefore, the more variety they use in their teaching methods, the better they are able to address the individual needs of the students they teach.

2.3 Self-Evaluation after the Active Learning Method is practiced in Class-room

The idea of teaching without self-evaluation what has been taught is implausible. Evaluation is a crucial part of every days learning and the school day. Teachers assess what their students have learned and how the students have achieved their instructional aims, at the same time, teachers assess their own and other teachers' work and the activities in the school.

Regarding this, Fauzia, et al. (2007) self-reflection and self-evaluation can be very valuable to the learning process. With clear learning objectives and clear criteria for assessment, students can effectively assess their own work and their progress towards achieving the learning objectives. Carrying out self-evaluation is also important in decreasing students' dependence on the teacher and encourages them to take greater responsibility for their own learning.

There are numerous reasons why teachers should be involved in assessing their own work. In the first instance, teachers will be expected to practice self-evaluation in every area of their lives, and it is a good exercise in self-development to ensure that these abilities are transmitted. In many of the types of assessment that teachers under take, they are expected to assess process as well as product (Brown & Peter, 1994).

According to the above point of view instructors or teachers should see assessment as a continuous and interactive process that measures the achievement of the learner, the quality of the learning experience and courseware. The feedback created by the assessment process serves as a direct foundation for further development.

The activities of the teacher in the class-room stand central and observational data collected in the class-room provide the grounds for analysis, reflection and self-evaluation. Reflection and self-evaluation on teachers' thoughts about their class-room practice is viewed a means to enhance their authority thinking and problem-solving. Such reflection and self-evaluation is also considered necessary to bridge the gap between espoused theories and actual practice (Veenman et al, 2001, P. 318).

2.3.1 Sources of Evaluative Feedback

To assess your work's image at any profession, including teaching self-evaluation is very important. Therefore, teacher must be do self-evaluation for effective implementation of active learning approach in class-room. And for effective self-evaluation, the teacher should be identifying the source of feedback.

According to Ellington, (1996) cited in Biadgelign, (2010, PP.387-388) the main source for effective feed back stated as follows:

i. **Feedback from Class-room Observation**: The most obvious way of determining whether a system of any sort is working is to observe the system in action. This is just as true of instructional systems such as courses, curricula and educational packages as it is of other systems, and can generally be carried out through class-room observation. Such observation can be direct and immediate, carried out at the time and can provide invaluable feedback on whether the course, curriculum or package is working in the way its designers intended, and also in identifying areas where some improvement might be made.

ii. **Feedback from Student Assessment**: When an instructional system has clearly defined objectives or learning out comes, a critical study of the result obtained from students' assessment can be of great assistance in the error-elimination process. Two basic techniques can be used.

   First, analysis of student assessments that form a normal part of the instructional system: When students assessment are an integral part of a course or other instructional system, the result of the trends indicated by these assessment can usually shed considerable light on the operation of the system as a whole. The evaluator should, as a result, be able to judge which objectives and out comes are being well achieved, and more importantly, which objectives and out comes are not.

   Second, analysis of student assessments carried out solely for evaluation purposes: When an instructional package of some sort is being trial tested, or when the relative effectiveness of two methods is being measured, specially-designed student assessment techniques can be used to evaluate the effectiveness of the methods involved, rather than to assess the actual students.

iii. **Feedback from the Students themselves**: Obtaining feedback from students regarding their experiences with and their opinions of an instructional system is one of the most common approaches to evaluation. The information can be sought through a variety of channels, including questionnaires, formal interviews and informal discussions, and can be obtained using either an illuminative or a scientific approach or a combination of the two.

iv. **Feedback from Teaching Staff:** Clearly, feedback teaching staffs who are involved in teaching a course or curriculum or in using an educational package in one of the key sources of information on its effectiveness. Such feedback can be obtained in a manner similar to feedback from students. Thus, if a teacher is evaluating his or her own course, module, package, etc, the teacher's own experience and the experience of colleagues should pay an important role in informing the evaluation process.

v. **Feedback from other Stakeholder:** People who do not have a direct link with the actual teaching-learning system under investigation may still be able to make an important contribution to its evaluation; again, questionnaires, interviews and informal discussions being appropriate means of gathering information, together with solicited comments.

2.3.2 The Advantage of Feedback Teacher to Students and Vice Versa

Feedback and assessment are an integral part of the teaching learning process. They allow learners to monitor their progress and achievement. At the same, they help the teacher identify students who need further help and perhaps remedial work. Feed back and assessment also allow teachers to monitor their own performance and suggest ways to revise and improve units of instruction (Fauzia et al 2007; HDP, 2004). Moreover, they added that feedback is not about judging and evaluation. It is about helping students and teachers to analyze progress in the learning process and identify the next steps to take. Regular feedback is an integral part of learning and is a critical factor in enhancing students leaning out comes. It is important to note, that they teacher should carefully design the evaluation content and the methods by which it is given so that the students feel free to give honest comments, and the teacher feels comfortable receiving the feedback.

To sum up, constructive and helpful feedback needs to be given to students to support and encourage further progress. Such feed back is not only of practical use to students in identify problems or indicating successful work, but also coveys to students that their progress is being carefully monitored and that teacher care about such progress. Such regular feedback thus offers a periodic walking boot to their motivation and effort.

2.3.3 Standard Criteria to Evaluate Class-room Activities in General

Evaluating the learning teaching process is a suitable task for teachers so as to make day-to-day and minute-by-minute informed judgments about their practices.

Regarding to this, Fauzia,etal. (2007) “If students are unaware of the assessment criteria it may also be difficult for them to understand the reasons behind teachers marking. This in turn makes it difficult for them to see how to improve. As a result, they are likely to continue marking the same mistakes and they are deprived of an opportunity to become independent learners.” For assessment to be fair and transparent, clear assessment criteria, shared with students, are vital. It is even better if students are involved in the development of the assessment criteria so they feel ownership of them and understand why they are important. Indeed, the process of developing assessment criteria can be a powerful learning experience in its own right (P. 61).

Inline with this, Biadgelign, (2010) suggests that an individual or groups of teachers can follow different formats to construct different items so as to collect feedback regarding the effectiveness of their teaching. He putt that some items that regarding to:

> *participation (encouraged to students to participate actively in class discussion), presentation (focusing on clear instruction, material, sufficient time), content (balance between theory and application, context and relevance of course materials), workload (a wide breadth of material has been covered),teaching methods and techniques (a variety of teaching strategies have been used), class atmosphere (conducive to learning), assignments(carefully chosen), and feed back(constructive and helpful feedback have been provided)* (P.396).

The Habit of Sharing Experience and Reflection Regarding Active Learning

Reflection and sharing experience in learning have advantageous to students and teachers with a way to look back at their experiences, evaluate them selves, and apply what is learned to future experiences. Students build skills necessary for analyzing and solving problems and developing creative solutions. Without reflection, students just report on experiences instead of examining how what they do impacts themselves and those they serve. Reflective activities that are designed well and implemented thoughtfully allow students to acquire a deeper understanding of the world around them and of how they can make positive contributions to society. According this, Pollard (2002) explains reflection is a continuous process and activities can occur at any time during the process and identified the implication of reflection in teaching as follows.

1. Reflection teaching implies an active concern with aims and consequences, as well as means and technical efficiency.
2. Reflection teaching is applied in a cyclical or spiraling process, in which teachers monitor, evaluate and revise their own practice continuously.
3. Reflection teaching requires competence in methods of evidence-based class-room enquiry, to support the progressive development of higher standards of teaching.
4. Reflection teaching requires attitudes of open-mindedness, responsibility and whole heartedness.
5. Reflection teaching is based on teacher judgment, informed by evidence-based enquiry and insights from other research.
6. Reflection teaching, professional learning and personal fulfillments are enhanced through collaboration and dialogue with colleagues.
7. Reflection teaching enables teachers to creatively mediate externally developed frame works for teaching and leaning (P. 12)

CHAPTER THREE

3. Methodology and Design of the Study

3.1 Method of the Study

In this study, descriptive survey research method (quantitative approach) was employed. Because it helps to explain educational phenomena in terms of the conditions or relation ships that exist, opinions that were held by the students and teachers, process that are going on, effect that are evident, or trends that are developing. Similarly, descriptive survey is the means through which opinions, attitudes, suggestions for educational practices can be obtained (Kaul, 1996, P. 403). In addition to this, the qualitative approach was employed using interview and observation to get an in depth understanding of complex activities especially related to human behavior that affects the practice or application of active learning method.

3.2 Data Sources of the Study

Concerning of primary sources, relevant data were collected from teachers, students, directors and cluster supervisors of the selected schools. Moreover, the researcher made class-room observation. It enables to draw valid inferences. On the secondary sources paying attention was in library and pedagogical center documents of the schools, and related books and journals to get information in-depth.

3.3 Sample and the Sample Size

A. Z**one, Woredas and Schools**

There are eight woredas in North Western Zone of Tigray. From these, four woredas were selected for the study using simple random sampling techniques. From the total of 92 schools in the selected woredas, sixteen schools (4 schools from each woredas) were selected using simple random sampling technique (specifically lottery system). Accordingly, sixteen upper primary schools were considered as sample of the study.

B. **Teachers, students, School Directors, Class-rooms Observation, Pedagogical Center, and Cluster Supervisors**.

I. **Teachers, School Directors, Cluster Supervisors and Departments (Subjects)**

Table 3: Sample Schools and Sources of Data Included in the Study

No	Name of the primary schools	Sample of students			Sample of teachers			Directors			Supervisors		
		M	F	T	M	F	T	M	F	T	M	F	T
1	Tsehaye	4	6	10	6	2	8	1	-	1	1	-	1
2	Tabaweane Tsinat	6	9	15	2	1	3	1	-	1			
3	Enba Danso	4	6	10	5	2	7	1	-	1			
4	Adikentibay	12	3	15	4	1	5	1	-	1			
5	Adinebried	8	7	15	1	1	2	1	-	1	1	-	1
6	Firesemaetat	6	4	10	2	2	4	1	-	1	1	-	1
7	Adidairo	10	5	15	3	1	4	1	-	1			
8	Adikokob	5	5	10	1	1	2	1	-	1			
9	Metosebategna	6	9	15	3	1	4	1	-	1	1	-	1
10	Semaetat	10	5	15	2	1	3	1	-	1			
11	Megabit 20	6	4	10	4	2	6	1	-	1			
12	Millennium	6	4	10	1	1	2	-	1	1			
13	Adihageray	6	9	15	2	1	3	1	-	1	1	-	1
14	Zagir	7	3	10	2	1	3	-	1	1			
15	Digub	5	5	10	2	-	2	1	-	1	1	-	1
16	Zibangedena	8	7	15	2	-	2	1	-	1			
	Total	109	91	200	42	18	60	14	2	16	6	-	6

There are four departments in upper primary schools; two departments were selected using simple random sampling techniques particularly the lottery system. From each upper primary school under the study, 60(50%) of teachers who had been teaching under the selected department using simple random sampling (lottery system) were the sample of the study.

All directors (sixteen in number) and all cluster supervisors (six in numbers) in the schools under study were selected using availability sampling system by considering their important positions in describing the implementation of the active-learning approach.

I. Students, Grade Levels and Sections

Grades 7 and 8 were selected using simple random sampling techniques. From a total of 109 sections in the selected schools, 40 sections (24 from grade 7, and 16 from grade 8) in the schools were selected using stratified sampling system for the study. Of the total 7715 students in the sample of the woredas, 200 students were selected using simple random sampling techniques particularly lottery system that were 5 students from each section.

Class-room Observation

From the departments of language and natural science, English and Chemistry were selected respectively using lottery system and accordingly 32 observations were made means two observations (Chemistry and English) in each school. To select the actual classes for observation, simple sampling technique was used by referring the schedule for the specific schools under the study.

Table 4: Distribution of the Subjects and Observations Conducted

Grade Level	Number of sections in the sample schools	Subjects	Number of observed sections in each departments	%
7	65	Language	8	24.6
		Natural science	8	
8	44	Language	8	36.4
		Natural science	8	
Total	109 sections		32 sections	29.4

II. Pedagogical Centers and Libraries

Pedagogical centers and libraries are very important facilities that should occur in schools in order to implement many of the innovations in the Education and Training Policy. Therefore, they were taken as sources of data where ever available.

3.4 Data Gathering Instruments and Procedures

To obtain adequate information, three types of data collection instruments were used in this study. These were questionnaires, interview and class-room observation.

Questionnaire

To get pertinent information from teachers and students, more open-ended and some close-ended questionnaires were prepared. They were used to assess the performance of teachers in utilizing active learning instructional activities, learning instructional strategies, attitude/perception for active learning, challenges, and self evaluation in implementing active learning were rated by the investigator using a three and a five point rating scales.

To achieve validity of the instruments, they were initially prepared in English so as to check the grammatical clarity of the items and it was shown for two MA second year students. Then, it was shown to my thesis advisor in order to comment the extent to which the items were appropriate in securing relevant information to the research study. Some amendments were then made based on the feedbacks obtained from the MA students and the advisor. Further, the students' questionnaire was translated in to the locale language (Tigrigna) and then shown to the expert in English and Tigrigna of department at Sheraro high school so as to alleviate any unnecessary complication in translation and responding to the study.

Interview

Interview is the major way in which a qualitative evaluator seeks to understand the perceptions, feelings and knowledge of people in programs through in-depth, intensive interviewing (Best & Kahan, 1989). In this study semi-interview was used to get data from the directors and cluster supervisors. It was not only because they were few in number that interview was administered to the directors and cluster supervisors but also their important positions in describing the implementation of the active-learning strategy.

Class-room Observation

The real instructional activities are manifested in the class-room while teachers teach and learners learn. It is in the class-room that the experience of teachers and students, class-room conditions, the work of supervision and other necessary facilities meet and interact. There fore, class-room observation was one of the supplementary data collected instruments and in this study to assess the type of instructional methods on the actual teaching- learning process it was preferable. Observation checklist was developed and employed to collect the data. A

two periods of class-room observation was made in each sample schools by focusing mainly on instructional process, students' activities, and class structure and lesson contents to triangulate the data obtained from the questionnaires and interview.

Ethical

This research was conducted by taking all ethical issues of a research in to consideration. Respondents (teachers and students) of the study were given brief explanation about the purpose of the study and asked to fill the questionnaires. Moreover, the interviews were conducted with directors and cluster supervisors by asking their informed consent to give their view regarding the interview guide. In the observation session, the directors were informed for the subject teachers to allow me for observe in the class-rooms, and then I did accordingly.

Pilot test

To address the issue of reliability of the questionnaires, pilot testing was conducted on a total of 44 participants (20 teachers and 24 students) drawn from Mentebteb(Musie) and Sahile upper primary schools which were selected using lottery sample techniques from these which were not selected in the actual sample of the study. The students were told how to give response to the questionnaire and explanation was given about the instructions of the questionnaire by the researcher during the pilot distribution. To this effect, teachers and students had given two days to fill and return the questionnaires. Accordingly, all the teachers and the students properly filled and returned it.

Finally, the responses of the participants were scored and tabulated to compute items inter correlation and Cronbach-Alpha in order to evaluate the scales and their reliability. Then, items which had a total inter correlation of less than 0.30 were discarded. The two measures found to be reliable with Alpha 0.93 (30 closed items) and Alpha 0.92 (34 closed items) for students and teachers respectively. Accordingly, from students and teachers questionnaire 4 items (items 2, 14, 22, 28) and 1 items (item 21) were modified respectively. Since these items were ranged between the Alpha of 0.62 to 0.64.

3.5 Statistical Tools and Data Analysis Technique

The data collected through questionnaires were tallied, systematically organized in items and tabulated for analysis purpose. Based on the tables and additional information that were obtained from the interview and class-room observations, analysis and interpretation of the data were made.

The data were analyzed quantitatively and qualitatively. In the quantitative case, descriptive statistical tools like frequency, percentage, mean and a series of tables have shown the items alternative response was used in order to convey ideas to the reader in away easily understandable. On the other hand, qualitative data were coded, categorized and identified the pattern systematically to support the quantitative data.

CHAPTER FOUR

4. Data Presentation, Analysis and Discussion of Results

This Chapter deals with the presentation and interpretation of the data gathered from the sample schools to seek appropriate answers to the basic questions raised in the first Chapter of this study.

Accordingly, the data gathered from sixteen upper primary school students, teachers, directors and cluster supervisors of North Western zone of Tigray. Three tools were used to gathered data. These were two sets of questionnaires, an interview guide questions and class-room observations. From a total of 200 copies of the questionnaire dispatched to students and of 64 distributed to teachers were properly filled and returned except four teachers. Likewise, prepared semi-structured interview guide questions were presented for six supervisors and sixteen directors, all of which have responded to the interview. Observation was made on the total of 32 sections (i.e. 16 sections at Language of departments and 16 sections at Natural Science departments) in the sample schools of grades 7 and 8, regarding the teachers and students activities in the class-room, the availability of facilities in the class-room and at school level in general, and on the teachers self evaluation system. Finally, it is divided in to three parts. In the first section deals with the characteristics of the subjects, the second section treats analysis and interpretation of the main data, and the third section discussions of results. Therefore, analysis and interpretation, and discussion of the data were made based on the responses obtained from the respondents and observations.

4.1 Back Ground Information of the Respondents

4.1.1 Back Ground Information of Students

Table 5: Sex, Age and Grade Level of Student Respondents

No.	Variables	Characteristics	(N=200)	
			N	%
A	Sex	M	110	55
		F	90	45
		Total	200	100
B	Age	12-14 years	137	68.5
		15-17 years	62	31
		18- 20 years	1	.5
		Total	200	100
C	Grade level	7	120	60
		8	80	40
		Total	200	100

This Table shows that almost all (99.5%) of the students in the eighth and seventh grades were within the age range between 12 and 17. This is an indication that they are matured enough to be instructed by problem solving or active learning approach (Kyriacou, 1998).

4.1.2 Back Ground Information of Teachers

Table 6.Teachers' sex, age, experience in teaching, qualification, average number of students per class and total loads per week

No.	Variables	Characteristics	(N=60) teachers' response	
A	Sex		N	%
		M	42	70
		F	18	30
B	Age	23-31	45	75
		32-40	9	15
		41-49	6	10
C	Teachers' experience in teaching	1-10	43	71.8
		11-20	11	18.2
		21-30	6	10
D	Average number of students per class	34-43	3	5
		44-53	22	36.8
		54-63	26	43.2
		64-73	9	15
E	Qualification	TTI	-	-
		Diploma	59	98.3
		Degree	1	1.7
F	Average number of loads per week	15-19	3	5
		20-24	29	48.3
		25-29	27	45
		Above 30	1	1.6

Table 6 shows that 60 teachers were included in the study, with regard to their sex 70% of teachers were males while the remaining 30% of them were females. Compared with male teachers, the numbers of female teachers in upper primary schools were lower. With regard to their age structure, the majority, 75% were in the age category of 23-31 years old the remaining, 15% and 10% of them were 32 - 40 and 41- 49 years old respectively. As to the working experience in teaching of the respondents, 71.8% had 1 to 10 years experience, 18.2% of them were 11- 20 years and 10% of them were 21 - 30 years had served.

As to the average number of students per class 5% of the classes had occupied with the average 34-43 students. Moreover, 36.8% and 43.2% of classes had occupied with 44-53 and 54-63 students respectively. While 15% of the classes had with the average of 64-73 of students. Here, 58.2% of the classes had engaged with high number students.
With respect to educational back ground or qualification, 98.3% and 1.7%of them Diploma and first Degree holders in academic subject respectively.

As to their teaching load, 5% of the teachers had periods between of 15-19. Besides, 48.3 % of them had 20-24 teaching load per week. The rest 45% and 1.6% of them had between of 25-29 and above 30 teaching load per week respectively. Here, it was observed that the majority of teachers had the teaching load ranging from 20-24 and 25-29 per week, which can overburden them to facilitate active learning in their respective schools.

4.2. Presentation and Analysis of the Main Data

4.2.1. The Level of Application of Strategies of Active Learning Method

The New Education and Training Policy of Ethiopia demanded a new paradigm of teaching and leaning, development of new strategies of teaching and learning based on the active learning and student-centered method. Based on this an attempt was made to shift from traditional teacher dominated methods of teaching to active or modern teaching methods. So the core interest of this study was to assess the level of active learning is practicing at class-room level.

To meet this, question was asked and response of the teachers and students regarding the level of practice of active learning approach is summarized in the following Table.

Table 7: Response of Teachers and Students on the Level of Practice of Active Learning

No.	Item	Students' response		Teachers' response	
A	How do you evaluate the practice of active leaning approach in your school?	N	%	N	%
	Very high	7	3.5	4	6.7
	High	29	14.5	9	15
	Moderate	57	28.5	11	18.3
	Low	82	41.0	31	51.7
	Very low	25	12.5	5	8.3
	Total	200	100	60	100

The results in Table 7 reveals that the majority, 31(51%) of teachers, 82(41%) of students reported that the level practice of active learning was low. Similarly, 5(8.3%) of teachers and 25(12.5%) of students reacted as it was very low. Some of the respondents, 11(18.3%) of teachers and 57(28.5%) of students replied as it was moderate. On the contrary, 9(15%) of teachers and 29(14.5%) of students replied as it was high. Plus, 4 (6.7%) of teachers and 7(3.5%) of students responded as it was very high.

To asses the reason why it makes low, open-ended question was forwarded for those respondents who replied the practice of active learning was low and very low in their respective schools. Most of the respondents reported that low commitment of teachers, low interest of students, lack of materials in the school, lack of knowledge and skill of teachers on the approach were the main reasons for its ineffectiveness. This was also supported by the directors and cluster supervisors of the schools on their interview. All the directors and supervisors reported that they have concerned about active learning approach since it is advantageous for learners to learn effectively and it motivates for learners if properly applied. To this effect, they reported that as there were some step practices on the method in class-room. But the magnitude of the practice was not as such and it is low, because all teachers are not using active learning approach and was not properly applied due to misconception of teachers and students about the methods and lacks of teachers' awareness and willingness to

use the method. They related active learning method only with group work other strategies of active learning methods are not known in most cases.

Further, in the context of this study, engagement has been conceived as a continuum that ranges from low to high in the level of students involvement (mentally and physically) in class-room activities. If class-room activities permit students' involvements to approach the highest level in the continuum, it is said to be active engagement. Conversely, if class-room activities restrict the level of students' involvements to the lower end in the continuum, it is said to be passive engagement. So to asses the students' level of participation a question was asked for teachers and their response has summarized in the following Table.

Table 8: Teachers' Response on the Level of Students Participation in Active Leaning Approach

Item	**Teachers response**	
How do you estimate the number of students who have participated while you use different techniques of active learning in class?	N	%
A. All students have participated in the classes	3	5.0
B. Above average of the class students have participated	8	13.3
C. Half of the class students have participated	10	16.7
D. Below average of the class students have participated	39	65.0
E. All students of the class have never participated	0	0
Total	60	100

As shown in Table 8, the majority, 39 (65%) of teachers reported that level of students participation in class-room was below average. Whereas, 8(13.3%), 10(16.7%), 3(5%) of teachers replied half, above average and all of the class students had participated in the class respectively.

Moreover, to asses teachers' attention and frequency practiced of active learning approach in class-room, questions were asked for students and the response has been summarized in the Table below.

Table 9: Students' Response on Teachers' Attention and Frequency to Practice Active Learning in Class-rooms

No	Item	Alternatives	Students response	
			N	%
A	Teachers' attention of the active learning strategy to lecture methods.	A. Very high	23	11.5
		B. High	37	18.5
		C. Moderate	43	21.5
		D. Low	82	41
		E. Very low	15	7.5
		Total	200	100
B	The frequency of teachers engaging in active leaning strategy.	A. Always	24	12
		B. Often	52	26
		C. Some times	118	59
		D. Never	6	3
		Total	60	100

As shown in the Table 9, the majority, 82(41%) of students responded that the attention of teachers toward active learning was low. Moreover, 15(7.5%) of them replied very low. On the other hand, 23(11.5%) and 37(18.5%) of the respondents replied as they were very high and high respectively. Regarding this issue, 43(21.5%) of the respondents assumed as their attention were moderate.

As indicated in the same Table above, majority of the students, 118(59%) reported that the frequency of teachers engaging learners in active learning strategy was some times and 6(3%) of them said never. On the other hand, 52(26%) and 24(12%) of them replied often and always respectively.

Table 10: Teachers' and Students' Responses on the Subjects Mostly Practicing Active Learning Method by Teachers.

Item		Response			
		Teachers		Students	
In which subjects do you believe in most cases active learning strategy is practiced? (You can give more than one answers).		F	%	F	%
Department of Natural Sciences	A. Physics	10	16.7	18	14.5
	B. Chemistry	5	8.3	16	12.9
	C Biology	9	15	23	18.5
	Total	24	40	57	46
Department of Languages	E. English	18	30	29	23.5
	F. Amharic	10	16.7	21	16.9
	G. Tigrigna	8	13.3	17	13.7
	Total	36	60	67	54

As can be observed from Table 10, the majority of the two groups of respondents on their view with total percentage 60 and 54 teachers and students respectively reported that in most cases active learning performed in department of languages. On the other hand, with the total percentage 40 and 46 of teachers and students respectively reported that active learning performed in department of natural Sciences. So according the respondents when we compared the two departments, it seemed display better performance active learning in department of languages than the department of natural sciences. Especially, it seems better at English from all subjects in language.

Table 11: Extent of Teachers' Encouragement for Students to Use Library

Items	Alternatives	Teachers response	
		F	%
Encourage students to use library so as to enhance active learning approach.	A. To a very great extent	9	15
	B. To a great extent	21	35
	C. To a limited extent	21	35
	D. To a very limited extent	6	10
	E. never encouraged at all	3	5

As shown in the Table11, to meet the degree of encouragement teachers' to their students to excises in the library, question was posed for the teachers and half of them (50%) reported as it was to a very great extent and great extent. Oppositely, half of the respondents replied that like it limited and never encourage at all. Following this, a question was forwarded teachers' to asses the reason behind that for those who reported the encouragement limited and not at all. Consequently, the majority, 17(28.3) of teachers guaranteed that teachers supposed as there is no adequate reference materials in the library, 9(15%) of them asserted teachers are no giving value for library in relation to active learning strategy. The remaining, 4(6.7%) of the respondents responded that the teachers supposed the capacity of students is low to use library in proper manner. The magnitude of students' performance on those who said a very great extent, and to a great extent mostly, (41%) of them replied like it was fair and poor.

4.2.1.1 Utilization of Strategies of Active Learning

Studies have shown the necessity of a number of values of features for effective implementation of pedagogical reforms that change in the class-room practice. As result, eight items were designed to assess the major strategies of active learning on the behave of teachers' performance in utilization each of these strategies which was rated by the researcher, using a five point rating scales: 5= very effective, 4= effective, 3= not sure, 2= not effective, 1= not very effective. The data analysis was interpreted by considering the five point Liket-scales.

Table 12: Teachers' and Students' Response on the Utilization of Active Learning Strategies

No	Strategies which are utilize by teachers	Respondents	Responses									
			Very Effective		Effective		Not sure		Not effective		Not very effective	
			F	%	F	%	F	%	F	%	F	%
A	Providing autonomy to learn independently	T	2	3.3	19	31.7	11	18.3	24	40	4	6.7
		S	27	13.5	50	25	33	16.5	55	27.5	35	17.5
B	Designing tasks that actively engage students in valid learning activities.	T	5	8.3	18	30	16	26.7	21	35	0	0
		S	35	17.5	31	15.5	17	8.5	91	45.5	26	13
C	Designing cognitively challenging tasks	T	3	5	19	31.7	21	35	16	26.7	1	1.7
		S	53	26.5	38	19	11	5.5	76	38	22	11
D	Grouping students in class-room to exit cooperative and competitive learning climate.	T	3	5	18	30	16	26.7	20	33.3	3	5
		S	27	13.5	39	19.5	22	11	83	41.5	29	14.5
F	Using different teaching aids to facilitate active learning approach.	T	7	11.7	17	28.3	19	31.7	16	26.7	1	1.7
		S	20	10	47	23.5	27	13.5	79	39.5	27	13.5
G	Arranging class room seats to smart participatory (interactive) learning.	T	2	3.3	15	25	16	26.7	25	41.7	2	3.3
		S	24	12	50	25	26	13	72	36	28	14
H	Providing time and opportunity for students to learn through reflective thinking.	T	6	10	13	21.7	16	26.7	21	35	4	6.7
		S	26	13	46	23	28	14	74	37	26	13
I	Framing the instructional activities with the actual context of the learners' lives.	T	8	13.3	17	28.3	17	28.3	16	26.7	2	3.3
		S	31	15.5	50	25	24	12	62	31	33	16.5

T = refers Teachers, S = refers Students

Table 12 shown the result of the assessment of teachers' instructional performance in utilizing active learning, 24(40%) of teachers and 55(27%) of students replied that teachers' instructional performance in creating class interaction that promote learners autonomy in the learning process was not effective. Moreover, 4(6.7%) of teachers and 35(17.5%) of students responded not very effective. On the other hand, 2(3.3%) of teachers, 27(13.5%) of students reported that as it was very effective. Plus 19(31.7%) of teachers and 50(25%) of students reported it was effective. The remaining, 11(18.3%) of teachers and 33(16.5%) of students were not sure on the performance of this issue.

As to the other item that deal with "designing tasks that actively engage students in valid learning activities", majority, 18(30%) of teachers assured effective, 5(8.3%) of them not considered as it was very effective, and 18(30%) and 5(8.3%) of them guaranteed as it was effective and very effective respectively. The remaining, 16(26.7%) of them were not sure on effectiveness of this feature. But inversely, majority, 91(45.5%) of students reported not effective, 26(13%) of them responded as it was not very effective and, 31(15.5%) and 35(17.5) of students assured as it was effective and very effective respectively. The remaining, 17(8.5%) of them were not sure about implementation of this practice.

With regarding the other character of active learning that deal with "designing cognitively challenging tasks", majority, 19(31.7%) of teachers replied as it was effective, and 3(5%) of them were very effective. Besides, 16(26.7%) and 1(1.7%) of them responded not effective and not very effective respectively. The remaining, 21(35%) were still not sure. Whereas, 76(38%) and 22(11%) of students reported as it was not effective and not very effective respectively. Moreover, 31(15.5%) and 35(17.5%) of them responded effective and very effective respectively. The remaining, 11(5.5%) of them were not sure on the practice.

In relation to other item that deals with "grouping students in class-room to exist cooperative and competitive learning climate", majority, of teachers 20(33.3%) and 83(4.5%) of students accounted that like it did not use effective, 3(5%) of teachers and 29(14.5) of students responded not very effective. Inversely, minority, 18(30%) of teachers and 39(19.5%) of

students responded like it was effective, 3(5%) of teachers and 27(13.5%) of students replied very effective. The enduring, 16(26.7%) of teachers, 22(11%) of students were not certain about this attribute of active learning.

On the same Table which says “using different teaching aids to facilitate active learning approach”, as the result shown, majority of teachers, 17(28.3%) and 7(11.7%) of teachers reported effective and very effective respectively, 16(26.7%) and 1(1.7%) of them accounted that like it was not used effective and not very effective respectively. Inversely, majority, 79(39.5%) and 27(13.5%) of students responded like it did not use effective and not very effective respectively. On the other hand, 47(23.5%) and 20(10%) of students replied effective and very effective respectively. The enduring, 19(31.7%) of teachers, 27(13.5%) of students did not sure with reference to the effectiveness or ineffectiveness usage of different aids.

With regards to “providing time and opportunity for students to learn through reflective thinking”, majority, 21(35%) of teachers and 74(37%) of students were confident as it was not effective, 4(6.7%) of teachers and 26(13%) of students reported not very effective. On the contrary, 13(21.7%) of teachers and 46(23%) of students guaranteed to its effectiveness, 6(10%) of teachers and 26(13%) of students responded very effective. But the remaining, 16(26.7%) of teachers and 28(14%) of students did not sure on the practice.

Lastly on the same Table that comprehends “framing the instructional activities with the actual context of the learners’ lives”, majority, 17(28.3%) and 13(13.3%) of teachers answered effective and very effective in that order. But minority, 16(26.7%) and 2(3.3%) of teachers replied as it was not effective and not very effective respectively. Conversely, majority 62(31%) and 33(16.5%) of students reported not effective and not very effective respectively. Plus, 50(25%) and 31(15.5%) of students replied effective and very effective respectively. The enduring, 17(28.3%) of teachers and 24(12%) of students did not certain on the performance this task.

4.2.1.2 Application of Teaching Methods by the Teachers at Class-room

Techniques of active learning that give much opportunity for students to take part in the instructional process. However, one type general teaching learning method does not meet what teachers want to meet at the end of the instructional process. Using different types of methods is very important aspect for effective teaching learning process. To meet these questions were asked and the response of teachers regarding the extent usage of different strategies of instructional methods. The Table below presents the results.

Table 13: Teachers' Response on the Application of Different Teaching Methods of Instruction

No.	Teaching Strategies	Extents of usage of different strategies of instruction					
		Always		Some times		Not at all	
		F	%	F	%	F	%
1	Explanation/lecturing	36	60	24	40	0	0
2	Demonstration	24	38.3	31	51.6	6	10
3	Question and answer	34	56.6	19	31.6	7	11.6
4	Brain storming	9	15	38	63.3	13	21.6
5	Discussion	34	56.6	18	30	8	13.3
6	Group work	22	36.6	31	51.6	7	11.6
7	Role play	6	10	25	41.6	19	31.6
8	Panel Discussion	4	6.6	33	55	23	38.3
9	Project work	2	3.3	34	56.5	24	40
10	Problem solving	21	35	26	43.3	13	21.6

As indicated in the Table 13, teachers were asked to indicate to what extent they use different strategies of instructional methods. Accordingly, from all strategies listed 60% of the respondents replied that they used explanations/ lecture method always. This was also supported by the observation made in the class-rooms. In all class-rooms observed teachers were used these methods for most of the periods. This implies that still the traditional teacher dominated, teacher-centered of methods of instruction given teaching learning activities in upper primary schools.

Demonstration which helps for learners to illustrate ideas, principles, concepts and skills only 38.3% and 51.6% of the respondents replied that, there were using always and some times respectively, whereas 10% replied as they were not using the demonstration methods.

The above Table also indicates that from different strategies of active learning method listed in the same Table, question and answer, and discussion were better used them than other strategies. Majority of the respondents 56.6% replied that they were used question and answer, discussion always, 31.6% and 30% used some times, 11.6 and 13.3% were not using it at all respectively.

Similarly group work which is one of the different strategies of active learning methods listed in the same Table and it helps for the learner actively participate in the class room activities. Minority of the respondents, 36.6% replied always. Whereas, 51.6% and 11.6% of the respondents confirmed that as they were used some time and not at all respectively.

Brainstorming is one of the active learning methods and used for generating ideas from students in class, only 15% of the respondents used always and 38% of them used sometimes. Whereas, 21.6% of them replied as they were used brainstorming method.

Role play which is useful for motivating learners for depending understanding and preparing learners for real life situation was also not used by the majority of the respondents. Only 6.6% and 55% of the respondents replied that there were used always and some times role play method respectively, whereas, 31.6% replied as they were not using the role play methods.

As can be seen from the Table panel discussion methods which are very important for learners to read on different issues, to bring and present the real life situations and help the learners to develop their higher order and critical thinking skills, were not used by the majority of the respondents. Only 4% of the respondents replied as they were using panel

discussion methods always and 55% of them sued sometimes were as 38.3% of the respondents replied that they were not using this strategy at all.

In addition to this, the project method which gives the class a real life and results in doing and problem solving was not used by the majority of the respondents. About 40% of the respondents replied that they were not used project method.

Finally, problem solving which helps learners to generate solutions to problems that are new to them was not used by the majority of teachers. About 21.6% of the respondents replied that they were not used at all the problem solving methods.

Proceeding question was forwarded to rank the methods according to their usage frequency and the responses were in most cases similar response with the above Table recorded. To this effect, 1st explanation/lecturing (60%), 2nd discussion (58.3%), 3rd question and answer (55%), 4th demonstration (53.3%), 5th group work (65%), 6th Problem solving (60%), 7th brain storming (63.3%), 8th role play (58.3%), 9th panel discussion (56.6%), and 10th project work(70%) ranked according their usage from the most frequency to the least frequency. Thus reveals that the strategies of active learning method were not applied adequately in upper primary schools.

Table 14: Students' Response on the Usage of Different Teaching Methods

Item	**Response**	
While your teachers teach you in class, in which of the following methods are they spent much time? (You can give more than one answers).	F	%
Lecture	123	61.5
Discussion	39	19.5
Group work	25	12.5
Role play	3	1.5
Problem solving	4	2.0
Pane discussion	6	3.0
Project work	0	0
Total	200	100

As shown in the Table above, majority, 123(61.5%) of the students declared that while their teachers teach them in class much time spent on lecture method. Next to this, 39(19.5%) and 25(12.5%) of them replied discussion and group work respectively. Surpassingly, 3(1.5%), 4(2%) and 6(3%) of them reported as their teachers used role play, problem solving and panel discussion respectively. Project work was not chosen at all.

4.2.1.3 Observed Activities of Teachers

The assumption of student-centered approach gives emphasis on various exercises student-centered interaction, and encouragement of students' inquisitiveness. Therefore, the first observation points in the class were the teachers' and students' activities on practicing of active learning approach.

Accordingly, in all class-rooms, teachers were not assessing the prior knowledge and experience of the learners by design cognitively challenging task before starting the subject matter of the day. All of the observed teachers were not motivating students to articulate their experience and practice to the topic they teach. Instead, the teachers were repeating what they have been taught in the past period and ask recalling questions. In almost all observed class-rooms, teachers were asking closed-ended questions which were based on recalling and memory.

In regarding, providing autonomy to learn independently, in almost all the observed classes, teachers used lecturing method for 20-25 minutes on certain topic. After lecturing students were asked to discussion in group on topics already taught in fixed group formed. During group discussion, all students were not involving in group discussion. Some students reading their text book or take notes independently and some others were even playing. There was no pre-planned task for students to discussion on. There was no job description to group members such as group leader or facilitator, time keeper, recorder and process observer to facilitate active learning in group discussion. In most the observed teachers not going around to make sure that all students were actively involved in group discussion. That means, though all teachers were using group discussion most of the in teaching-learning, the strategies used in group discussion was not effective.

In the way of providing time and opportunity for students to learn through reflective thinking, majority of the trend is that teachers ask closed-ended questions and automatically the fast learners speak the answers or the teacher continues lecturing by way of answering the question. In many occasions the students did not raise their hands to answer as the teacher also just through the question as it to encourage every body to answer at once. However, out of the 32 class-rooms observation made, it was only in five (15.6%) class-room teachers were observed asking two or three questions concerning the new topic to be discussed later. Therefore, this shows that teachers rarely provided times and opportunity for students to engage in thinking about what and how they are learning.

Another observation was made on the way of framing the instructional activities with the actual context of the learners' lives. And in most observed classes especially in natural science departments, the topics were not related with the students live instead they were lecturing on the text theory.

Learning aids were not used in most of the observed classes as it is very important aspect to enhance activities in learning. Though some teachers tried to use it, students were not given a chance to explain about the materials (aids) in relation to the topic. That means, the teachers were trying hard to explain about the aids.

Lesson planning has numerous importance to class-room teachers and other personalities who are interested in knowing how and what is going on in the class-rooms during the teaching learning process. One of the most important is: direction is provided toward achievement of a desired result. This is for the very reason that employing different facilitators can enhance communication. Besides, teachers can refer to the same plan, understand the why of that particular activity, and identify activities that shall be completed on that particular time (Biadglign, 2010). In respect with this, in most of the observed lesson, the content of the lesson seemed related with to students' experiences and interest. But the lessons which prepared by the teachers, it did not corresponding the methods and the contents because what ever the topic it said lecture and group discussion. So this indicate us teachers' choosing appropriate method was no on the positions.

Further in relation to teachers' evaluation, in all observed classes, students' awareness to the evaluation activities did not perform by any teacher. General comments about the daily lesson from teachers and students had not seen.

4.2.2. Challenges which Affects to Practice Active Learning Approach

4.2.2.1 Teachers, directors and supervisors Training

To asses teachers', directors' and supervisors' participation in training some questions were posed to the three groups. For teaches using questionnaire form and directors and supervisors by interview form. So, the result has been summarized in the following Table.

Table 15: Participation of Teachers', School Directors' and Cluster Supervisors' in Workshops or Seminar

No.	Items	Alternatives	Responses					
			Teachers		Directors		Supervisors	
A	In-service training (workshop, seminars etc) on the application of instructional methods like active learning, student-centered?		N	%	N	%	N	%
		Yes	42	70	7	58.3	3	50
		No	18	30	5	41.7	3	50
B	The level of understanding or knowledge on those instructional methods.	Very high	6	14.3	0	0	0	0
		High	1	2.4	0	0	0	0
		Moderate	8	19	3	42.9	1	33.3
		Low	25	59.5	4	57.1	2	66.7
		Very low	2	4.8	0	0	0	0

The training of educational staff (teachers, directors and supervisors) is a crucial factor among multitude of factor that affects the implementation of the new teaching methods. Because, the education staffs are important decision makers as regard to actual learning opportunities provided to students. If the problem is lack knowledge of the new teaching method which requires new roles and commitment, implementation will be hampered seriously. Hence, provision of in-service training is essential to acquaint teachers, directors and supervisors with new teaching learning methodology which are oriented more to wards

students-centered instruction. Indeed, the adoption of innovation such as new teaching methods and provision of in-service training of these education staffs are opposite sides of the same coin. Research findings show that the participation of teachers, directors and supervisors in the workshop, or seminars etc plays decisive role in up grading the knowledge and skills of teachers and others teaching staffs in implementing student-centered methodologies.

In line with this, Table 15, shown that 18(30%) of teachers, 5(41.7%) of directors and 3(50%) of the supervisors had not got the opportunity to participate on the work shops and seminars regarding the implementation of active learning approach. However, as we can observe from the above Table, 42 (70%) of teachers, 7(58.3%) of directors and 3(50%) of supervisors had got the chance to participate in the workshops and seminars concerning active learning.

Furthermore, for those who had got a chance to participate in different training, question was forwarded to rate the level of their understanding or knowledge on the methodology of active learning approach. As indicated in the Table above, 6(14.3%) and 1(2.4%) of teachers' response was very high and high respectively. On the other hand, 25(59.5) and 2 (4.8) of them were low and very low respectively. Moreover, 3(42.9%) and 4(57.1%) of directors reported that as it had moderate and low respectively. Similarly, 1(33.3%) and 2(66.7) of supervisors reacted moderate and low respectively.

What we can infer from all these that in-service training and refreshing course would help even the most qualified teachers, directors and supervisors those who are serving in upper primary schools, to be come student-centered oriented. It also provides opportunities to share experience among teachers, directors and supervisors to develop skill and knowledge toward new teaching methods and techniques.

Table 16: Teachers' and Students' Response on Serious Challenges to Implement Active Learning

Below is the summary of the respondents obtained from teachers and student respondents to the questions asked to select and list some serious factors that hinder the implementation of active learning in their respective school.

Item	Response					
	Teachers		Students		Total	
	N	%	N	%	N	%
Which one of the following is the most influential for implementation of active learning in your school? You can give more than one answer and add if you have any more.						
Negative attitude of teachers' toward active learning	34	10	8	5.9	42	8.8
Negative attitude of students' toward active learning	45	13.3	23	16.9	68	14.3
Inadequate of teachers' training	58	17	28	20.6	86	18
Lack of teachers' commitment	83	24.3	17	12.5	100	20.9
Large class size	56	16.4	20	14.7	76	15.9
Lack of support from education office	65	19	40	29.4	105	22

As shown the Table, most teachers and students rated the most influential factors for implementation of active learning as follows:

Lack of support from education office 105 (22%), lack of teachers' commitment 100 (20.9%), inadequate of teachers' training 86(18%), large class size 76 (15.9%), negative attitude of students' toward active learning 68 (14.3%), negative attitude of teachers' toward active learning 42 (8.8%).

Above and beyond these options prepared them to select, most of the respondents especially teachers listed the following in common factors that affects for active learning method. Those are:

- Lack of teaching resources
- Un availability of facilities
- Some students are less interactive and are not willing to cooperate
- Time constraints
- Teachers' workload

These all factors which are listed above were reacted by most of directors and cluster supervisors during in their interview. In addition to this, four directors articulated that most of our school teachers have been upgraded on the private college with distance education and they did not take practical pedagogy not only for active learning but also the general methodology. As a result, they have lack of understanding and skills to implement active learning approach.

4.2.2.2 Teachers' and Students' Attitude toward Traditional Method Tendency influence to Active Learning

Table 17: Response on the Influential Accustomed Lecture Method in Practicing Active Learning

To asses the accustomed old method of the teaching whether it has an impact over teachers and students for implementation of active leaning, questions were asked for teachers and students, the result has been summarized in the following Table.

No	Items	Alternatives	Responses					
			Teachers		Students		Total	
			N	%	N	%	N	%
A	To what extent does the accustomed traditional lecture methods students' tendency hinder to the implementation of active learning?	Very high	13	21.7	27	13.5	40	15.4
		High	20	33.3	51	25.5	71	27.3
		Moderate	20	33.3	91	45.5	111	42.7
		Low	6	10	26	13	32	12.3
		Very low	1	1.7	5	2.5	6	2.3
		Total	60	100	200	100	260	100
B	To what extent does the accustomed traditional lecture method teachers' tendency hinder to the implementation active learning in teaching?	Very high	10	16.7	33	16.5	43	16.5
		High	21	35.	58	29	79	30.4
		Moderate	20	33.3	60	30	80	30.8
		Low	8	13.3	37	18.5	45	17.3
		Very low	1	1.7	12	6	13	5
		Total	60	100	200	100	260	100
C	What is the extent of your agreement to the statement, cooperative work invites dependency of majority students on minority?	Strongly agree	10	16.7	55	27.5	65	25
		Agree	29	48.3	77	38.5	106	40.8
		Undecided	8	13.3	27	13.5	35	13.5
		Disagree	10	16.7	29	14.5	39	15
		Strongly disagree	3	5	12	6	15	5.7
		Total	60	100	200	100	260	100

Table 16 depicts that majority of the total percentage of the two groups, 15.5, 27.3, and 42.7 reported that it could influence very high, high and moderate respectively. The remaining, from the total percentage, 24.6 of the respondents replied that it could not affect for implementing active learning.

On the some Table, the question reads, “to what extent does the accustomed traditional lecture methods teachers’ tendency hinder to the implementation of active learning”, majority of the two groups’ total percentage of 16.5, 30.4, and 30.8 of the respondents reported that it could influence very high, high and moderate respectively. The enduring, from the total percentage, 22.3 of them responded low. That means accustomed traditional lecture methods teachers’ tendency has no influence on the implementing of active learning approach.

Similarly in this Table, another question reads as “what is the extent of your agreement to statement, cooperative work invites dependency of majority students on minority”, majority of the two groups with total percentage of 65.8 of the respondents agreed on the assumption. For those respondents open-ended question was exceeded. And their reason was some active learners have dominated for the middle and low learners during discussion and group work and according them this was as one major problem for implementing active learning.

4.2.2.3 Observed School Facilities and Instructional Materials

The nature of class-room the availability of library and pedagogical center are among the important facilities that should be fulfilled in teaching-learning process. To this effect, the researchers also observed pedagogical center, library and class condition of the sample schools and has been summarized the data on the Table (Appendix 7).

As indicated in Appendix 7, in all the observed schools have pedagogical center. However, they have not enough facilities to facilitate the pedagogical center sufficiently. The schools have not experts but it runs on by one or two teachers assigned by the school staff to facilitate the pedagogical center besides the loaded periods. Regarding the pedagogical centers program, in most the observed schools, 62.5% of them had program to students for hands on activities in the pedagogical center, whereas, 37.5% of them had not program. Furthermore,

the researcher observed whether the students had used effectively or not, based on their program documents in those who have pedagogical center and the result showed that 25% of them used effectively, however, 75% them did not use properly. Adding up to this, observation was made on teachers' usage materials in pedagogical center and the result from the pedagogical center document showed me, the majority, 10 schools not used in effective way because in the prepared form which had used to have a loan of there was no satisfactory result. Whereas, in 6 the observed schools had used in some what it seemed good.

As demonstrated in the Table (you can see, on Appendix 7.) from the observed schools, 11(68.7 %) of them have library, but in 5(31.3 %) of them have not library. However, in those schools which have library, there had no enough reading materials in it The helpful things what the researcher observed that of course they have librarian who served up for the learners and the teachers in appropriate manner. In addition, except in one school, in 10 of the schools had a program to serve for their learners through out the week. However, in almost in the observed schools, students did not follow the program successfully.

Moreover, observation on class-room condition was made in the sample schools. Class-room condition is the combination of teacher strategies and class-room organization factors that leads to productive learning environment.

Regarding this, Silberman (1996) states the physical environment in a class-room can make or break active learning. No one set up is idea, but there are many options to choose from. The "interior decorating" of active learning is fun and challenging (especially when the furniture is less than ideal).

The researcher's observation result has shown that in almost all cases of the observation, the sitting arrangement is found to be so traditional that the desks and students face straight to the blackboard. While group discussion conducted in the classes, it was difficult to move desks, even students to move with different direction to face their group members. In most of the classes, they were not enough facilities in the class-room. However, he had observed

appraisable condition in two sections which were better in their arrangement and occupied with different facilities and teaching aids decorated.

4.2.3 Students and Teachers Perception toward Active Learning Method

As indicated in Table 18 below, 10 items were asked to the two groups of respondents so as to assess their attitude and perception with the features of active learning method. Accordingly, while respondents were asked to rate using five Point Likert-scales that contain: strongly agree (5), agree (4), undecided (3), disagree (2) and strongly disagree. The data analysis was interpreted by condensing the five point Liket-scales in to the three options; these are, agreed, undecided and disagree. Since the data gained from the two groups of respondents were evenly distributed among the three options used in analyzing the data, mean value used to show the central tendency of their response.

Table 18: Teachers' and Students' Perception toward Active Learning Method

No.	Items	Respondents	Responses								Mean value (X)
			Agree		Undecided		Disagree		Total		
			F	%	F	%	F	%	F	%	
A	The quality of education can be improved if teachers shift their instruction from the lecture method to active learning approach.	T	54	90	4	6.7	2	3.3	60	100	4.45
		S	145	72.5	18	9	37	18.5	200	100	3.90
B	Students' lack of interest has affected the implementation of active learning in the upper primary school.	T	42	70	10	16.7	8	13.4	197	98.5	3.88
		S	130	65	41	20	29	14.5	200	100	3.76
C	Active learning enhances students' level of understanding and involves them in problem solving.	T	52	86.6	3	5	5	8.4	60	100	4.4
		S	175	87.5	13	6.5	10	5	198	99	4.29
D	Active learning creates the opportunities to share experiences and encourage friendship among students.	T	53	88.3	4	6.7	2	3.4	60	100	4.49
		S	156	78	16	8	27	13.5	199	99.5	4.08
E	In Practice most teachers use lecture method than active learning approach in their teaching	T	31	51.7	12	20	17	28	60	100	3.35
		S	102	51	50	25	48	24	200	100	3.38
F	Teaching is the sole responsibility of teachers.	T	22	36.7	6	10	32	53.4	60	100	2.68
		S	146	68	20	10	44	22	200	100	3.78
G	Active learning decrease students' and teachers' work loads and saves time.	T	33	55	5	8.3	22	36.5	60	100	3.37
		S	111	55.5	42	21	44	22	197	98.5	3.48
H	Active learning frustrates behavior of students	T	28	46.7	8	13.3	24	40	60	100	3.08
		S	124	62	25	12.5	50	25	199	99..5	3.57
I	Active learning enhances active involvement of students in learning instead of passive listening.	T	48	80	6	10	6	10	60	100	4.17
		S	166	83	9	4.5	24	12	199	99.5	4.18
J	Active learning enhances self-confidence and independence learning of students.	T	51	85	5	8.3	4	6.6	60	100	4.38
		S	166	84	19	9.5	14	7	199	99.5	4.20

Where; T = refers Teachers; S = refers students

As shown in the Table 18, 10 statements were presented to teachers and students with the intention of assessing their attitude towards active learning approach.

The majority of the teachers, 54(90%) and students, 154(72.5%) agreed that the quality of education can be improved if teachers shift their instructional from the transmission lecture method to active learning approach. Oppositely, 2(3.3%) of teachers and 37(18.5%) of students disagreed with the assumption. The remaining, 4(6.7%) of teachers and 18(9%) of students yet not decided.

Again the interests of the two groups toward active learning were asked in the same Table. Students' lack of interest has affected the implementation of active learning in the upper primary school, 42(70%) of teachers, 130(65) of students agreed. Whereas, 8(13.4%) of teachers and 29(14.5%) of students were disagreed with the assumption. The remaining, 10(16.7%) of teachers and 11(20%) of students did not decided.

Furthermore, in the same Table, the respondents were asked to reflect their attitudes towards other items in active learning it reads, "active learning enhances students level of understanding and involves them in problem solving" was one that have been supported by the majority, 52(86.6%) of teachers. In the case of students, the majority, 175(87.5%) of the have agreed on the assumption. On the other hand, relatively low proportion, 5(8.5%) of teachers, 10(5%) of students disagreed with the assumption. The enduring, 3(5%) and 13(6.5%) of teachers and students response respectively yet not decided.

The other item that states as "active learning creates the opportunities to share experiences and enough friend ships among students" was also reacted by the two groups. In line with this, large number of teachers and students: 53(88.3%), 156(78%) respectively accepted the assumption. Whereas, 2(3.4%) of teachers, 27(13.5%) of students disagreed on the idea. And 4(6.7%) of teachers and 16(8%) of students yet not decided. This reveals that almost all groups understood the role of active learning in promoting cooperation and of ideas among students.

Item E in the same Table reads “in practice, most teachers use lecture methods than active learning approach in their teaching” was supported by half of the two groups. This has been deduced from the fact that 31(51.7%) of teachers, 102(51%) of students agreed. Whereas, 17(28%) of teachers, 48(24%) of students disagreed. In contrast, 12(20%) of teachers and 50(25%) of students did not decided.

With regard to other item that states “teaching is the sole responsibility of teachers”, was surprisingly, the position of teachers and students opposing one another on the assumption. Teachers, 32(53.7%) and 42(22%) of students disagreed. Whereas, 22(36.7%) of teachers, and 146(68%) of students agreed. On the same item, 10(32%) and 10(44%) of teachers and students respectively not decided on the idea. From this we can deduced that especially the teachers want to dominate the teaching system and still there is misunderstanding with assumption of the active learning approach.

With respect to the other item that reads, “active learning decrease students’ and teachers’ work loads and saves time”, majority of teachers, 33(55%), and 111(55.5%) of students agreed on the assumption. On the other hand, 22(36.5%) of teachers, and 44(22%) of students disagreed. Disparity, 5(8.3%) of teachers and 42(21%) of students did not decided. However, Capel et al (1995) in his research study reported that some teachers feel as it is bounded by over-crowded subject matter and thus pressurized by the limited time they have to teach. The belief persist that active learning takes too much time and thus covering, the portion is difficult or impossible.

Item H which says, “active learning frustrates behavior of student” was one have been supported by the majority, 124(62%) of students but minority, 28(46.7%) of teachers agreed on the assumption. In the contrary, 24(40%) of teachers, and 50(25%) of students disagreed. The enduring, 8(13.3%) of the teachers, and 25(12.5%) of students yet not decided.

Another item which says, “active learning enhances active involvement of students in the leaning instead of passive listening” was reacted almost in similar way. Because the great proportion of teachers, 48(80%) strongly supports the idea and the remaining, 6(10%) and 6(10%) disagreed and undecided respectively. Similarly, 166(83%) of students agreed while

24(12%) disagreed, 9(4.5%) not decided. This reveals that directly or indirectly, the contribution of active learning instructional approach is gradually replacing the old tradition of students' passive listening to the teacher as understood by teachers and students in the upper primary schools. In other words, this implies that some significances of active learning are understood by respondents that help them to develop positive attitude.

The last item in the Likert scale reads the role of active learning, "enhancing self-confidence and independent learning of students" was reacted positively by the majority of respondents. With this respect, majority of teachers, 51(85%) agreed and 4(6.6%) disagreed and 5(8.3%) did not decide. Likewise, 166(84%) of students agreed and 14(7%) did not agree, the remaining 19 (9.5%) of them did not decide.

Students had mean values above the average for all items. But teachers respondents rated mean value around the average (3) for the three items (items, E, F, H). So this seems as there is some gap between students and teachers in some items of their attitude toward active learning.

As the information collected from the interviewees, it found that teachers' and students' attitude or perception towards active learning was positive. Therefore, from the results of the questionnaire and the data obtained from interview, it is possible to conclude that, this in turn will have good opportunity to exercise active learning in upper primary schools.

4.2.4 The level of Application of Self-evaluation in Practicing Active Learning

Teachers should be involved in assessing their own work and activities in class for better improvement of teaching learning process. Therefore, teacher should provide the grounds for analysis, reflection and self-evaluation in class-room. To meet this, seven items for teachers and six items for students were designed to assess the level application of self-evaluation in practicing active learning and for each of these evaluation system which was rated by the investigator, using a five point rating scales: 5= Excellent, 4= Very good, 3= Good, 2= Fair, 1= Poor. The mean values used to show the central tendency of their response.

To this effect, the response of teachers and students regarding the level application of active learning approach has summarized in the following table.

Table 19: Teachers' and Students' Response on the Level of Application of Self-Evaluation in Practicing Active Learning

No	Items	Respondents	Responses												Mean value
			Excellent		Very good		Good		Fair		Poor		Total		
			F	%	F	%	F	%	F	%	F	%	F	%	
A	Attempting to correct teachers' weakness by analyzing carefully their selves and their work.	T	1	1.7	0	0	7	11.7	45	75	7	11.7	60	100	2.03
		S	5	2.5	13	6.5	35	16.5	111	55.5	27	38	200	100	2.18
		TO	6	2.3	13	5	35	13.5	156	60	34	13.1	260	100	
B	Evaluating for active leaning experience in terms of the objectives and out comes to be attained in.	T	5	8.3	11	18.3	8	13.3	34	56.7	2	3.3	60	100	2.72
		S	9	4.5	18	9	25	12.5	104	52	44	22	200	100	2.22
		TO	14	5.4	29	11.2	33	12.7	138	53.1	10	1.5	260	100	
C	Creating conducive atmosphere to gain feed back from their students after the lesson.	T	11	18.3	14	23.3	11	18.3	21	35	3	5	60	100	3.15
		S	10	5	16	8	29	14	105	52.5	40	20	200	100	2.26
		TO	21	8.1	30	11.5	40	15.4	126	48.5	43	16.5	260	100	
D	Giving feed back for their students after or before preformed the activities by students in or out of the class.	T	4	6.7	10	16.7	7	11.7	33	55	6	10	60	100	2.55
		S	4	2	21	10.5	26	13	108	54	41	20.5	200	100	2.20
		TO	8	3.1	31	11.9	33	12.7	141	54.2	47	18.1	260	100	
E	Encouraging students to develop a good habit on evaluating them selves and their work.	T	2	3.3	2	3.3	11	18.3	37	61.7	8	13.3	60	100	2.22
		S	10	5	20	10	20	10	110	55	40	20	200	100	2.25
		TO	12	4.6	22	8.5	31	11.9	138	53.2	48	18.5	260	100	
F	Creating an appropriate criterion to evaluate each task which is performed by teacher and students in class or out of the class.	T	2	3.3	4	6.7	8	13.3	30	50	16	26.7	60	100	2.10
		S	3	1.5	12	6	33	16.5	99	49.5	53	26.5	200	100	2.07
		TO	5	1.9	16	6.2	41	15.8	129	49.6	69	26.5	260	100	
G	Sharing experience with their colleagues.	T	3	5	28	46.7	13	21.7	13	21.7	3	5	60	100	2.60

N.B .T= refer teachers S= refer students TO= total

Table 19 shows the level performance of teachers' self-evaluation after active learning practicing activities in class-room in upper primary schools. Accordingly, in the first item of the Table, the respondents were asked to rate the extent to which attempting to correct teachers weakness by analysis carefully about their works. And the results shown majority of teachers and students 86.7% and 74.5% reported that the performance was fair and poor respectively. Both the groups of respondents rated with the mean of 2.03 of teachers and 2.18 of students, which are below average.

With respect to item B, 60% of teachers and 74% of students responded that the performance of evaluating for active leaning experience in terms of the objectives and out comes to be attained in like fair and poor. The teachers and students had mean 2.72 and 2.22 respectively, which are below average.

With regard to item C, 40% of teachers and 72.5% of students indicated that teachers' creating conducive atmosphere to gain feedback from their students after lesson was not activated. Teachers had a mean value of 3.15, which is above the average unlike students had a mean value of 2.26, which is below average.

In item D of the Table 19, 65% of teachers and 74.5% of students responded that the performance of giving feedback for students after or before exercised any activities by students in or out of the class was found to be fair and poor. The teachers and students had mean 2.55 and 2.20 respectively, which are below average.

As has been observed from item E on the same Table, the teachers and students, with equal percentage 75 indicated that there were poor encouraging teachers' to their students to develop a good habit on evaluating their works and themselves. The teachers and students had rated the mean values of 2.22 and 2.25 respectively, which are below the average.

In respect the item F on the same Table, 46% of teachers and 76% of students replied that on the creating an appropriate criterion to evaluate each task which is performed by teacher and

students in class or out of the class as it was fair and poor. The teachers and students had rated the mean values of 2.07 and 2.10 respectively, which are below the average. Regarding this observation was made; in all the observed classes no one applied this at all.

Furthermore, the response of the interview held with directors and cluster supervisors also revealed that there was no any attempt made in sixteen the upper primary schools. Therefore, from the interview made and from the results of the data obtained, it seemed that the performance of teachers in the self-evaluation and reflection in the upper primary schools were in competent to practice efficiently.

The last item G on the same Table, which reads, “Sharing experience with their colleagues”, reacted positively by the majority of respondents and this question was presented for teachers only. With respect this majority of teachers, 73.3 % replied as they performed well and 26.7% of them responded that like it was poor. The teachers had mean 3.25, which is above average.

4.3 Discussion of Results

In this part, the data that had been gathered and analyzed were discussed under four major red marks, in response to the four basic research questions formulated under statement of the problem. The major ideas of the discussion are:

- The level of application of active learning
- Opportunity and Challenges to implement active learning
- Attitude toward active learning
- Level of teachers’ self-evaluation to enhance active learning

The discussions of the results supported with review of literature that included views of scholars and other research findings.

4.3.1 The Level of Application of Active Learning

To asses the extent to which active learning approach has been practically exercised in the upper primary schools, the four groups of respondents reacted either through questionnaire or the interview. To substantiate the data, observation was also made.

To this end, for the first group of respondents, i.e. students, two questions were set to know the magnitude of active learning and to know teachers' emphasis of teaching on the provision of active learning and lecture methods.

Accordingly, the majority of the students 53.5% and 28.5% asserted that the magnitude of active learning was low and moderate respectively, which was reflected during the interview too. On teachers' emphasis of teaching on the provision of active learning and lecture methods, the majority of the respondents, 48.5% and 21.5% asserted that the magnitude of active learning was low and moderate respectively. That means teachers gave more emphasis to lecture method than active learning method.

For the second group of respondents (teachers), two questions were presented, which gave more emphasis to level of practice of active learning and the level participation of students in class-rooms. To this end, the majority of respondents 60% and 18.3% reflected that the practice of active learning approach was low and moderate respectively in upper primary schools. This position is similar to students, which led the researcher to the conclusion that the practice of active learning is low in upper primary schools of North West zone of Tigray. On the students' participation level, majority 65% of teachers reported that below average.

Also the researcher, during his class observation had observed that students were widely listen than either discussing with each other or with their teachers in the class-room except in the few occasions, where group discussion is observed in the classes. Even some times, there was an occasions where the teacher gives an explanation on the daily lesson for the wider portion of the period. Therefore, this study has matched with most of research findings have shown that the traditional lecture methods, in which teachers talk and student listen.

Moreover, for student respondents were asked a question to spell out the frequency engagement of teachers in active leaning, majority of students 118(59%) reported that the frequency of teachers engaging learners in active learning methods was some times.
For supplementary, a question requested for the two groups of respondents regarding the performance of active learning in the two departments i.e. Language and Natural Science. The results shown that, majority of the two groups of the respondents on their view with total percentage 60 and 54 teachers and students respectively reported that in most case active learning was performing in department of languages, especially at English subject.

Concerning the extent of advising teachers' to their students to use library for facilitating the implementation of active learning a question was requested for teachers, the result of the study confirmed , (50%) of the respondents limited extent and never encourage at all and initiate students to use library. Because teachers are supposed as there are no adequate reference materials in the library, teachers are no giving value for library in relation to active learning approach and teachers are supposed the capacity of students is low to use library in proper manner. And some of the respondents added on open-ended question as they have no library in their school as the researcher observed. Though (50%) of the respondents replied that a very great extent and great extent, the magnitude of students' performance as (41%) of them were replied like it was fair and poor.

Generally, the result assessment of teachers' instructional performance in utilizing active learning was ineffective. However, on the individual item has shown some extent difference.
On the issue of providing autonomy to learn independently, the majority, 28(46.7%) of teachers and 90(45%) of students not assured for teachers instructional performance in creating class interaction that promote learners autonomy in the learning process. On the other hand, 21(35%) of teachers, 77(38.5%) of students reported that as it was effective. In this regard observation was made, in almost in all observed classes, teachers used lecturing method for 20-25 minutes on certain topic. After lecturing students were asked to discussion in group on topics already taught in fixed group formed. Here it is not mean lecture method not mandatory in a class at all but it is better if most of the time is given for students' involvement in a task to create independently learning among the students. But on the

observed classes, during group discussion all students were not involving in group discussion. There was no pre-planned task for students to discussion on. There was no job description to group members such as group leader or facilitator, time keeper, recorder and process observer to facilitate active learning in group discussion. That means though all teachers were using group discussion in their teaching-learning process, the techniques which they used in group discussion were not effective.

As to the other item that deal with designing tasks that actively engage students in valid learning activities, majority, 23(38.3%) of teachers assured effective, 21(35%) of them not considered as it was effective. But inversely, majority, 117(58%) of students reported that not effective, 66(33%) of them assured as it was effective. With this respect observation was made, the observed lessons were not designed in a way the require students to learn through in depth discussion. Therefore, though the majority of teachers' respondents reported like it was effective, based on the majority of students' response and the researcher's observation it is possible to conclude that it was not effective. As to Chin,etal (2002) citied in Wendmagegehu (2006) the nature of the tasks set by teachers and the cognitive demands required of the learners, influence the level of students' thinking or their learning approach. This clearly suggests that the level of students engagement in active learning is influenced by the nature of the class questions asked, the way the questions are utilized, the level of students involvement in generating questions and the way the answer generated by the questions are made.

With regarding the other character of active learning that deal with "designing cognitively challenging tasks", majority, 22(36.7%) of teachers replied as it was effective, 17(28.4%) of them were not effective. Whereas, 98(49%) and 91(45.5%) of students reported as it was not effective and effective respectively. Moreover, on the observation period, in all class-room teachers were not assessing the prior knowledge and experience of the learners by design cognitively challenging task before starting the subject matter of the day. All of the observed teachers were not motivating students to articulate their experience and practice to the topic they teach. In stead, the teachers were repeating what they had been taught in the past period and ask recalling questions. In almost all observed class-rooms, teachers were asking closed-

ended questions which were based on recalling and memory. However, according to Kyrincou (1998), teachers' questions should be open-ended, help students to articulate and defend or modify their opinions to feel confident about their knowledge.

In relation to other item that deals with "grouping students in class-room to exist cooperative and competitive learning climate", majority, 23(38.3%) of teachers and 112(56%) of students reported that like not effective at all. Oppositely, 21(35%) of teachers, 66(33%) of students were guaranteed as it was performed effectively. According to, McCombs and Whisler (1997) the implementation of effective teaching strategies is one of the basic criteria to be an effective teacher. If teachers are on the position to help students to learn, they must be to select and use teaching strategies that produce learning. But this study revealed that teachers not a such creative.

Regarding using different teaching aids to facilitate active learning approach, the result has shown, minority, 17(27.4%) of teachers and majority of teachers 24(40%) accounted that like it was not used effective and used effective respectively. Inversely, majority, 106(53%) and minority 67(33.5%) of students responded that like it was not used effective and used effective respectively. Learning aids were not used in most of the observed classes as it is very important aspect to enhance activities in learning. Though some teachers tried to use, they were not given a chance to students to explain about the materials (aids) in relation to the topic. That means the teachers were trying hard to explain about the aids.

With regards to "providing time and opportunity for students to learn through reflective thinking", majority, 27(45%) of teachers and 100(50%) of students were confident as it was not effective. On the other hand, 17(28.3%) of teachers and 74(37%) of students replied that to its effectiveness. In the observation session, in the way of providing time and opportunity for students to learn through reflective thinking was majority of the trend was that teachers ask closed-ended questions and automatically the fast learners speak the answers or the teacher continues lecturing by way of answering the question. However, out of the 32 class-rooms observation made, it was only in five (15.6%) class-room teachers were observed asking two or three questions concerning the new topic to be discussed later. Therefore, this

shown that teachers rarely provided times and opportunity for students to engage in thinking about what and how they are learning.

With respect framing the instructional activities with the actual context of the learners' lives, majority, 25(41.5%) and minority 18(30%) of teachers reported as it was effective and not effective respectively. Conversely, majority 95(47.5%) and minority 81(40.6%) of students replied not effective and effective respectively. On the observation was made, in most observation classes especially in natural science departments, the topics were not related with the students live instead they were lecturing on the text theory.

The other area of emphasis was the application of different instructional methods in the schools. The findings revealed that from all strategies listed 60% of the respondents replied that they were using explanations/ lecture method always. This was also supported by the observation made in the class-rooms. In all class-rooms observed teachers used these methods for most of the periods. This implies that still the traditional teacher dominated, teacher-centered of methods of instruction given teaching learning activities in upper primary schools.

The other fact is that, among active learning techniques of instruction discussion, question and answer, group work, demonstration, and brainstorming were the most commonly used instructional methods. These methods were employed widely because most probably they were familiar with the teachers. On the other hand, other active leaning methods related with higher level cognitive domain and believed to develop critical thinking and problem solving capacity of students had not widely employed. Because the majority of teacher respondents disclosed that these methods were employed either some times or not at all.

In line with this, (Chickening and Gamson, 1997; Lue, 2000) in their research noticed that students do not learn much just sitting in the class listening to teachers, memorizing package assignment and spitting out answer. They must talk about what they learn, write reflectively about it; relate it to past experience and apply it to their daily life. They must engage in solving problems. Similar to the previous one, role play, panel discussion, project work and

problem solving had been practiced some times or not at all, in the schools, as depicted in the finding.

4.3.2 Challenges to Implement Active Learning

According to Tilahun (2002), if teachers are properly trained and implement the skills they acquire in their professional career, they are likely to influence their student. In teacher training, the knowledge and skills teachers acquire enable them to help their students effectively. Moreover, Ornstenin and Hunkin(1998) elaborated that the implementation of curriculum seeks the coordination of people, material and program so as to carry out the stated goals.

In line with this view, the knowledge and skill of teachers were assessed two questions. Accordingly, teachers' previous experience on workshops or seminars in relation active learning approach was the first question raised to know their knowledge and skill. And the results shown, 42(70%) of the respondents had taken training on the approach. The remaining, 30% of them did not participated at any workshop and seminar regarding active learning. However, in respect their level of understanding it found low because 25(59.5) and 2 (4.8) of them reported that low and very low respectively.

These questions were repeated for the directors and cluster supervisors during the interview. And as to them 58.3% of directors and 50% of cluster supervisors have been taken workshops and seminars but 41.7% of the directors and 50% of the cluster supervisors' had not been participated at any workshops and seminar regarding active learning. Similar to the teachers' response, those who had taken workshop and seminar in respect the level of their understanding found low. Generally speaking, though the progress seemed some what good but still the problems half hazard in the schools.

Another question was raised to know if teachers' and students' tendency to traditional lecture method is affected to practice active learning sufficiently. With respect to this problem, the two groups of respondents agreed that the tendency of teachers and students to the traditional

instructional methods of teacher's explanation or lecture was affected negatively the effective implementation of active learning.

Supporting this fact, other researchers (Dary and Terry, 1993; Silberman, 1996) have stressed the importance of students' past experience, which is a transformative rather than passive accumulation of knowledge. They notice that unless learners consider the implications of the ideas for them in their own lives and decide to act, know and believe in new way; they are likely to adopt a passive acquiescence to the teachers' knowledge structure. And ultimately, this passive students' learning has not made a difference because it has been transformative and at best resulted in some accretion of knowledge. Thus, it is possible to suggest that active learning approach seeks the emancipation of learners from the old belief that has dominated methods of teaching over the last century. Therefore, it should be known that before student-centered method of instruction be comes an accepted way of thinking, it is certainly difficult and even frustrating for teachers to practice it.

Next to this, a question was designed for the two groups of respondents, teachers and students to distinguish their agreement on the cooperative work among students' in active leaning has invited the dependency of majority students on minority. And the result shown that majority of the two groups, total percentage of 65.8 of the respondents agreed on the assumption. For those respondents open-ended question was exceeded. And their reason was some active learners have dominated for the middle and low learners during discussion and group work.

Moreover, one question was asked to select the serious problems in their respective school and to add another factors if they had which affect for exercising active learning in effective way. Consequently, the result has shown us in the following order based on their percentage. Lack of support from education office 105 (22%), lack of teachers' commitment 100 (20.9%), inadequate of teachers' training 86(18%), over crowded class 76 (15.9%), negative attitude of students' toward active learning 68 (14.3%), negative attitude of teachers' toward active learning 42 (8.8%) were explained as the main hinder factors to implement active learning sufficiently and this supported by all groups with varying magnitude.

Likewise, these all factors which are listed above were reacted by most of directors and cluster supervisors during in their interview. In addition to this, four directors articulated that most of our school teachers have been upgraded on the private college with distance education and they did not take practical pedagogy. As a result, they have lack of understanding and skills to implement active learning approach effectively.

Particularly, the problem of time constrain was widely raised on the open-ended question with teachers, during interview with directors and cluster supervisors. Time constrain is the major problem in implementation of active learning as many findings reflected.
Capel et al, (1995) for example, explain ever some teachers discourage active learning simply because it brings an extra demand in the planning, preparation and evaluation. They believe that active learning is pressurized by limited time and over crowed subject matter. As a result, even some come to the conclusion the participatory, activity-based learning is best in theory but unrealistic in practice. This may arise from inadequate knowledge on the area and improper utilization.

As it is common that like any educational issue in the teaching-learning process, active learning too may come across constraints during its implementation in the real class-room condition. Most scholars like AED/BESO (2003); Bonwell and Eison (1991); ICDR (1999) and Ellis (2007) point outs these challenges associates with: lack of adequate resources, inadequacy of teachers' training, lack of teachers' commitment ,unfavorable classroom(fixed furniture space, etc),learners' cultural and social back ground, teachers' work load, learners' assessment method or mechanism. This finding also reached to the same conclusion in that the most respondents disclosed the negative influence those all factors mentioned above on the effective implementation of active learning.

As can we be seen from review of the related literature, scholars stressed that the condition of the class-room should be as conducive as possible, so as to achieve the real and practical implementation of active learning instructional strategies. Nevertheless, the result of this

study from observation showed that the conduciveness of the class-room to implement active learning instructional strategies was found to be poor.

4.3.3 Attitudes toward Active Learning

The research findings Dary and Terry (1993) have noticed that, if the students had no appropriate perception on the procedures and activities of active learning, they are liable to develop negative attitude for various reasons. For instance, a student who is used to exercise traditional passive instructional methods, which require only listening, may look shy and un cooperative, or destructive and oppose at the beginning of student-centered class-room activities. On the contrary, according to Kyrincou (1998), active learning activities are likely to be enjoyed, offer opportunity for progress, are less threatening than teacher's talk activities, and there by foster more positive attitudes in pupils towards the subject.

The main intention here is that there is a strong tie between human attitude and their effort to implement or practice any task. Similarly, in order to implement active learning, the implementer should develop the necessary positive attitude towards active learning instructional methods. To this effect, ten items were offered for the two groups of respondents with the intention of assessing their attitudes towards active learning. In the finding, it was appeared that, in almost all of the items, the majority of teachers and students had constructive feeling towards active learning, in spite of their low perception on the nature and application of active learning. Particularly, the contribution of active learning in the instructional process is the belief of the two groups.

However, specific items intended to assess respondents' attitude reflected that there was variation in position between the group and with in the group. For instance, the teaching is the sole responsibility of teachers was the belief of the majority of teachers and students 36.7% and 68% respectively.

In short, it is possible to deduce that if conducive of environment is available, teachers and students were in good turn of active learning as effective instructional method to be employed in any steps of education as the result of the findings depicted.

Level of Teachers' Self-Evaluation to Enhance Active Learning

According to Brown and Peter, (1994) there are numerous reasons why teachers should be involved in assessing their own work. In the first instance, teachers will be expected to practice self-evaluation in every area of their lives, and it is a good exercise in self-development to ensure that these abilities are transmitted. In many of the types of assessment that teachers under take, they are expected to assess process as well as product.

In line with this, seven items for teachers and six items for students were designed to assess the level application of self-evaluation in practicing active learning.

Accordingly, the respondents were asked to rate the extent to which attempting to correct teachers weakness by analysis carefully about their works. And the result shown, majority of teachers and students 86.7% and 74.5% reported the performance was fair and poor respectively. Both the two groups of respondents rated with the mean of 2.03 of teachers and 2.18 respectively, which are below average. In line with this idea, Veenman, Simon, et.al, (2001) explained that the activities of the teacher in the class-room stand central and observational data collected in the class-room provide the grounds for analysis, reflection and self-evaluation. However, this study indicated that, the majority of teachers did not assess their works by analysis their progress. This is because most of the two groups of respondents' i.e. teachers and students reacted like it was poor.

With regard to item C, 40% of teachers and 72.5% of students indicated that teachers' creating conducive atmosphere to gain feedback from their students after lesson was not activated. Teachers had a mean value of 3.15, which is above the average unlike students had a mean value of 2.26, which is below average. With this respect, Biadgelign, (2010) obtaining feedback from students regarding their experiences with and their opinions of an instructional system is one of the most common approaches to evaluation. However, this study revealed that, teachers not created conducive atmosphere to gain feedback from their students after practiced activities. Since the majority of teachers' and students' response showed us the performance was low. Moreover, the class observation indicated similar result. In all observed classes, no one had performed this.

In this item, 65% of teachers and 74.5% of students responded that the performance of giving feedback for students after or before performed any activities by students in or out of the class was found fair and poor. The teachers and students had mean 2.55 and 2.20 respectively, which are below average. As to (Fauzia,, et al, 2007; HDP, 2004) explain that feedback is helping for students and teachers to analyze progress in the learning process and identify the next steps to take. Regular feedback is an integral part of learning and is a critical factor in enhancing students leaning out comes. Conversely, this study showed that it was not performed in the upper primary schools of North Western zone of Tigray.

As has been observed from item E, of the Table, the teachers and students, with equal percentage 75 indicated that there were poor encouraging teachers' to their students to develop a good habit on evaluating their works and themselves. The teachers and students had rated the mean values of 2.22 and 2.25 respectively, which are below the average.

Item F on the same Table, 46% of teachers and 76% of students replied that on the creating an appropriate criterion to evaluate each task which is performed by teacher and students in class or out of the class as it was fair and poor. The teachers and students had rated the mean values of 2.07 and 2.10 respectively, which are below the average.

According to, Fauzia, et al. (2007) if students are unaware of the assessment criteria it may also be difficult for them to understand the reasons behind teachers marking. This in turn makes it difficult for them to see how to improve. As a result, they are likely to continue marking the same mistakes and they are deprived of an opportunity to become independent learners. For assessment to be fair and transparent, clear assessment criteria, shared with students, are vital. It is even better if students are involved in the development of the assessment criteria so they feel ownership of them and understand why they are important. However, the result of this study revealed that most of teachers did not perform this activity.

Furthermore, the response of the interview held with directors and cluster supervisors also revealed that there was no any attempt made in the sixteen upper primary schools.

The last item G, on the same table, which reads, “Sharing experience with their colloquies”, was reacted positively by the majority of respondents and this question was presented for teachers only. With respect this majority of teachers, 73.3 %) have replied as they were performed and 26.7%) of them were responded that like it was poor. The teachers had mean 3.25, which is above average.

CHAPTER FIVE

5. Summary, Conclusions and Recommendations

This Chapter deals with the summary, conclusions, and recommendations. The first section, brief summary of the general study and the major findings are presented. Next, conclusions of the basic findings are made. Finally, some possible recommendations are given on the basis of major finding of the study.

The main purpose of the study was to asses the level of implementation of active learning strategy in upper primary schools of North Western zone of Tigray.

Particularly, the objectives of the study were:

- To examine the extent to which active learning strategy is practiced in the class-rooms of upper primary schools of North Western zone of Tigray.
- To address the opportunities and/or problems/ challenges associated with active learning strategy.
- To explore the perception of teachers and students towards active learning strategy.
- To assess whether the teachers are engaging in self evaluation after active learning strategy is practiced in class-room.

To build up the objectives, four basic research questions were raised. These are:

1. To what extent the active learning strategy is implemented (practiced) in the upper primary schools of North Western zone of Tigray?
2. What are the opportunities and challenges in implementing active learning strategy in upper primary schools of the zone?
3. What is the attitude of teachers and students towards the active learning strategy in the schools?
4. To what extent teachers evaluate their successes after they practiced active learning strategy in class-room?

To gather data on the topic, the study was conducted in sixteen upper primary schools of North Western of zone Tigray. The subjects of the study were teachers, students, directors and cluster supervisors.

Data were gathered through questionnaire from the two groups of respondents, 60 teachers and 200 students. To substantiate the quantitative data unstructured interview was conducted with 16 directors and 6 cluster supervisors. Moreover, in 32 sections of grades 7 and 8 class-rooms observations were made. The data obtained were analyzed through percentage, mean and frequency. Based on the analysis of the data, the following major findings were obtained.

5.1 Summary of the Findings

The Level of Practice of Active Learning

The analysis of the data disclosed that the level of practicing active learning in the upper primary schools of North Western zone of Tigray, according to the majority (53.5%) of the respondents was found to be low. However, the remaining respondents i.e. 28.5% and 18 % of them reported that it was moderate and high respectively in their respective schools. Besides, teachers' performance in utilizing most of the fundamental strategies of active learning pedagogy was ineffective. This was also confirmed in the class-rooms observations session. Moreover, the majority 39 (65%) of teachers reported that level of students participation in class-room was below average

The other area of emphasis was the application of different instructional strategies in the schools. The findings revealed that from all strategies listed most of the respondents (60%) replied that they were using explanations/ lecture method always. Moreover, most of the students (61.5%) declared that the proportion of time spent by their teachers were on lecture method. However, discussion, question and answer equal 56.6%, demonstration 38.3%, group work 36.6%, problem solving 35%, panel discussion 6.6%, and project work 3.3% of them used always. This was also supported by the directors and supervisors in their interview, and class-room observation made. In all the class-rooms observed teachers were using lecture methods for most of the periods. This implies that though the schools have shown considerable progress in using different teaching strategies, still the traditional teacher

dominated /teacher-centered/ methods of instruction are emphasized in upper primary schools.

Opportunities for Implementation of Active Learning

Educational and Training Policy initiatives put to have radical reform of teaching method system as policy to implement active learning strategy at classroom level. The interlocking of nature of education, the involvement of school staffs and woreda experts in their respective professionals' development activities, curriculum, syllables, teaching and academic programs, teachers' training institute, environmental facilities and equipment, the various packages of quality education improvements are compelling opportunities to implement active learning strategy. Moreover, the study reveled that teachers' and students' attitude or perception toward active learning was positive so this in turn will have good opportunity to exercise active learning in upper primary schools.

Challenge for Implementing Active Learning

Even though the schools have been many opportunities to practice active learning in classrooms, there were many challenges for its effectiveness. As result, the findings revealed that the major factors that affected for implementation of active learning strategy were:

a) Teachers' previous experience on workshops or seminars in relation to active learning strategy seemed good but some number of teachers, almost half of directors and cluster supervisors' did not participate at any workshops and seminar regarding active learning. Moreover, according to the teachers' response, those who had participated in workshop and seminar the level of their understanding found to be low. Generally speaking, though there is some progress, but still the problems of lack of understanding seemed exist in the schools.

b) The majority of respondents in the two groups that is teachers and students' tendency to traditional lecture methods greatly affected the implementation of active learning.

c) Assigning the students to work different active learning tasks in groups created problem in that the majority of students become dependent on the minority.

d) Shortage of time, lack of support from education office, lack of teachers' commitment, inadequate teachers' training, large class size, lack of teaching resources (teaching aids), unavailability of facilities (library, pedagogical centers), some students poor

interactive and unwillingness to cooperate in learning, teachers work load, unfavorable class condition, lack of financial support hampered in implementation of active learning in the schools of north western zone of Tigray.

Attitudes toward Active Learning

The findings demonstrated that the majority of the teachers and students have positive attitudes toward the indicators of active learning strategy.

Students had mean values above the average for all items. But teacher respondents rated mean value around and below the average (3) for the three items. These were most of teachers use lecture methods than active learning approach in their teaching, teaching is the sole responsibility of teachers and active learning frustrates students' behaviors. So it seemed that teachers and students have perception gap in some indicators of active learning strategy.

Level of Self-Evaluation to Enhance Active Learning

The analysis of the data disclosed that the level of self-evaluation to enhance active learning in the upper primary schools of North Western of zone Tigray was found to be fair and poor. Because based on the finding, the two groups of respondents confirmed that the level of performance of self-evaluation regarding active learning instructional approach has been poor on their respective schools with the mean value of below average (3) except on the creating conducive atmosphere to gain feedback from their students after lesson, and sharing experience with colleagues have been supported by teachers as a good performance (above average). This was also supported by the directors and supervisors interview, and the observation made in the class-rooms by the researcher.

5.2 Conclusion

Based on the major findings of the study, the following conclusions were drawn.

A. When one thinks to implement active learning method in class, he/she has to have the skill and understanding of the instruction in line with specific students' interest. What makes active learning method superior to traditional method is, among others, maximizes learning and motivation of students by giving a chance for the learners to do activities actively and creatively with the information analyze it, think about it, discuss on it and report it. So these help them to exercise their talents and desire tend to practice on it.

Moreover, a teacher is much more important to organize the activities, help, check their progress, facilitate and give feedback to students. However, the findings of the study disclosed that the level of practicing active learning in the schools was not found as the expected. This implies that teachers in most case were not applying the active learning instructional strategies in class-room in encouraging students' engagement in different activities so as to enhance their higher-order critical thinking abilities. This was in relation the level of students' participation in class-room, practicing instructional strategies, and the attention of teachers toward active learning. To this effect, the results concluded that teachers' lack of knowledge in the practical skills necessary for clear understanding and proper application of active learning method was the main obstacle.

In addition to this, the study reveled that, the teachers were not using different form of active learning strategies like project work, problem solving, brain storming, demonstration and panel discussion frequently. Rather the teacher-centered, lecture methods applied most of the time. The commonly used from the student-centered strategy was only group discussion. The study further disclosed that the method of applying group discussion was not based on the principles of group discussion. Based on the above facts, it can concluded that, the active learning method of teaching- learning process was not properly applied in upper primary schools of the zone due to lack of skills and understanding of teachers on the concept and technical procedure of each methods.

B. The common obstacles that to implement active learning in the upper primary schools of the zone are shortage of adequate time, shortage of adequate finance and unavailability of instructional materials, inadequate teachers', directors' and supervisors' training. Moreover, in most cases the conduciveness of the class-room to implement active learning instructional strategies was found to be poor. This implies that there were no enough inputs to facilitate and assure the practice of active learning method at class-room level. So it concludes that the concerned body did not give attention to minimize these fundamental problems.

C. Though most the respondents have positive attitude toward active learning instructional approach, they are not yet practicing it effectively in their actual class-room. Therefore,

one can conclude that teachers and students support for active learning method simply without practical skills and understanding the appropriate application of active learning methods.

D. Moreover, the findings of the study disclosed that the level of practicing self-evaluation to enhance active learning method in the schools was found to be fair and poor. This implies that teachers did not monitor, evaluate and revise their own practice continuously by gaining feedback from their students and others to improve the teaching-learning process. Therefore, from the findings it is possible to conclude that the performance of teachers' in the self-evaluation and reflection in the upper primary schools are in competent to practice efficiently due to shortage of adequate resources, teachers' training in self-evaluation techniques and high number of students in a class.

5.3 Recommendation

Based on the findings of the study and the conclusions drawn, the following recommendations have been forwarded so as to improve implementation of active learning strategy in the schools of North Western zone of Tigray.

1. The level of practicing of active learning in the schools of North Western zone of Tigray was found to be low and moderate in most cases. Similarly the degree of exercising different active learning instructional methods in the schools was not used adequately.

Thus, it is advisable that continuous and extensive orientations should be offered to teachers on both theoretical and practical aspects of active learning strategy including the various techniques employed by woreda educational office and the schools.

Moreover, in order to bring change, the school and Education office of the woreda have to arrange short term and long-term training as much as possible. Make educational visit in model schools to share experience on the innovative instructional approaches in line with the curriculum reform in the country. Besides, the school must arrange every opportunity that can help to familiarize them with educational views and technologies, changing from time to time. For instance, by arranging available professional articles, periodical materials, written on current affairs, etc.

2. In addition to the preceding points, other factors such as implementers tendency towards lecture methods, majority of students become dependent on the minority, shortage of time, lack of support from education office, lack of teachers' commitment, inadequate of (directors', supervisors' & teachers') training, lack of teaching resources, un availability of facilities, some students are less interactive and are not willing to cooperate, high load period per week, large class size were as hinder factors to implement active learning in the schools of North Western zone of Tigray. To minimize and gradually avoid these problems, various measures have to be taken. Accordingly:

- In line with the new educational and training Policy, continuous and intensive short-term and long-term training must be offered to teacher so as to enhance their awareness and gradually shift their tendency from teacher dominated to learner focused instructional approach.
- Teachers are required to give both individual and group work activities proportionally, and make serious and continuous follow up to check whether or not each member contribute to the group. The teachers are also responsible to develop team sprit among students initiate individual effort because active learning is difficult with out the use of cooperative learning. Teachers should be encouraging students to participate and engage in classroom activities.
- The Regional Education Bureau, woreda Education office should work together in equipping the schools with necessary instructional materials such as reference books, pedagogical centers materials and else. Because active learning will be difficult with out the use of appropriate resources in the schools class-rooms. Besides, school must be create conducive work regulations that give teachers sufficient preparation and working time and provision of educational materials and resources to implement active learning methods in their class.
- To implement active learning also requires attractive class-rooms with enough space for making proper seating arrangement. But this study disclosed that conducive of the class-rooms found to be poor. Therefore, strongly recommended that; the schools and the community should work together to improve the school environment so as to create conducive class environment for implementation of active learning strategy

- To implement active learning strategy sufficiently and to minimize these challenges, all implementers and stakeholders must be familiar with and be appropriate the indicated opportunities.i.e The interlocking of nature of education, the involvement of school staffs and woreda experts in their respective professionals' development activities, curriculum, syllables, teaching and academic programs, teachers' training institute, environmental facilities and equipment, the various packages of quality education improvements, and the teachers' and students' positive attitude or perception toward active learning**.** As the result, the schools and the woreda experts must have interlink on the communicating the strategy, empowering operational areas, emphasizing a process of continual improvement, and ensuring links decision-making are critical success factors as per the identified opportunities.

3. To cultivate fertile ground and to maximize the level of teachers and students positive attitude toward active learning strategy, it recommended that:

- Teachers must not be assigned to teach more load period per week. Because they can not effective carry out active learning instructional approach with high teaching by its nature. Both groups must aware of the facts that active learning by its very nature makes individuals busy by involving them in different practical activities. Therefore, they must be oriented to adjust themselves and develop readiness.
- Teachers' awareness and planned effort is important to avoid unnecessary domination among students during group discussion because active learning is imaginable with out cooperative learning.

4. Teachers' performed in self-evaluation activities found to be fair and poor in the upper primary schools of North Western zone of Tigray. However, regular, reliable, timely self-evaluation is a key to implement active learning. To this effect, it is strongly recommended that the school and woreda Education should give training to teachers on how develop plan and criteria in relation to the self-evaluation and reflection. And allow them to apply the criteria to their class-room context.

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