

**APPLICATION OF ACTIVE LEARNING METHODS
DURING PHYSICAL EDUCATION CLASSES IN
SOME SELECTED WEST ARSI ZONE
PREPARATORY SCHOOLS**

**BY
BESHIR EDO**

**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE
STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF SCIENCE IN SPORT SCIENCE**

**MAY 2012
ADDIS ABABA**

**APPLICATION OF ACTIVE LEARNING METHODS
DURING PHYSICAL EDUCATION CLASSES IN
SOME SELECTED WEST ARSI ZONE
PREPARATORY SCHOOLS**

**BY
BESHIR EDO**

**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE
STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF SCIENCE IN SPORT SCIENCE**

**MAY 2012
ADDIS ABABA**

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

**APPLICATION OF ACTIVE LEARNING METHODS DURING
PHYSICAL EDUCATION CLASSES IN SOME SELECTED
WEST ARSI ZONE PREPARATORY SCHOOLS**

BY
BESHIR EDO

APPROVED BY THE BOARD OF EXAMINERS

CHAIRMAN

SIGNATURE

DATE

ADVISOR

SIGNATURE

DATE

EXAMINER

SIGNATURE

DATE

Declaration

I, the undersigned, hereby declare that this thesis is my original work done under the guidance of Dr. Bezabih Wolde, and it has not been presented for degree in any university. All sources of materials used duly acknowledged.

Name: Beshir Edo

Signature: _____

Place: AAU

Date: April 4, 2012

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

Name: Bezabih Wolde (PhD)

Signature: _____

Date of approvals: _____

Acknowledgments

I would like to express my gratitude firstly to almighty God who added days to my age so that I would be successfully in my career of completing a graduate program. Secondly, my gratitude goes to my advisor, Dr. Bezabih Wolde, for his constructive comments, and useful suggestions throughout the course of my thesis work. Thirdly, I would like to acknowledge Dr. Getachew Adugna for his unreserved advice and constructive suggestions. Fourthly, sincere thanks to school managers as well as respondents in the sample schools who were cooperative in filling questionnaire, interview and providing me with information.

My special thanks are still extended to my friends Abduljebar Gemmechu, Abdela Kedir, Nasir Antu and others who have rendered to me moral, financial and material supports in the graduate program.

Last but not least, I am indebted to my brothers Kedir Edo and Muhmmed Edo who supported me during my years of study. Also I thank AAU for his financial and facilities supports and sport science department for giving such chances.

Table of Contents

	Pages
Acknowledgments -----	i
Table of Contents -----	ii
List of Tables -----	vi
List of Appendixes -----	vii
Acronyms -----	viii
Abstract-----	ix
CHAPTER ONE	
1. Introduction-----	1
1.1 Background of the Study -----	1
1.2 Statement of the Problem -----	4
1.3 Objectives of the Study -----	4
1.4 Research Questions -----	5
1.5 Significance of the Study -----	5
1.6 Delimitation of the Study -----	6
1.7 Limitation of the Study-----	6
1.8 Definition of Operational Key Terms -----	7
1.9 Organization of the Study-----	7
CHAPTER TWO	
2. Review of Related Literature -----	8
2.1 Origin of active learning -----	8
2.2 What is active learning -----	8
2.3 Advantages of active learning -----	9

2.4 Some active learning methods-----	12
2.4.1 Cooperative learning-----	12
2.4.2 Conducting field trips-----	13
2.4.3 Jigsaw group-----	13
2.4.4 Goldfish bowl or fish bowl-----	14
2.4.5 Cross-over group-----	14
2.4.6 Questions and answers -----	14
2.4.7 Think-pair share-----	14
2.4.8 Group discussion-----	14
2.4.9 Role playing -----	15
2.4.10 Demonstrations -----	15
2.5 Some methods of teaching practical classes of PE-----	15
2.6 The role of teachers, students and principals in application of active learning approaches -----	16
2.6.1 The role of teachers in active learning approaches-----	16
2.6.2 The role of students in active learning approaches-----	19
2.6.3 The role of principals in active learning approach -----	20
2.6.4 The role of supervisor in facilitating teaching methods -----	20
2.7 Factors affecting the application of active learning-----	21
2.7.1 Human related factors -----	21
2.7.1.1 The training of teachers-----	21
2.7.1.1.1 Higher diploma program training-----	23
2.7.1.2 Teachers attitudes-----	24
2.7.1.3 Students knowledge and attitudes -----	25

2.7.2 Non-Human related factors -----	26
2.7.2.1 The physical environment and classroom conditions-----	26
2.7.2.2 Class size -----	27
2.7.2.2.1 Class size for PE practical classes -----	28
2.7.2.3 Instructional materials -----	29
2.7.2.3.1 Instructional materials for PE practical classes-----	29
2.8 Need of modern methods in physical education-----	31
CHAPTER THREE	
3. Research Design and Methodology -----	32
3.1 Research Design -----	32
3.2 Data Sources -----	32
3.3 Sample Size and Sampling Techniques -----	33
3.4 Data Collection Instruments -----	34
3.5 Procedure of Data Collection -----	35
3.6 Method of Data Analysis -----	36
CHAPTER FOUR	
4. Presentation, Analysis and Interpretation of Data -----	37
4.1 Backgrounds of Respondents -----	37
4.2 Data obtained from the classroom observation-----	38
4.3 Data collected through questionnaires -----	44
4.3.1 Teachers responses -----	44
4.3.2 Response from students-----	55
4.4 An analysis of the interview with school director -----	62
CHAPTER FIVE	

5. Summary, Conclusions and Recommendations-----	64
5.1 Summary-----	64
5.2 Conclusions -----	67
5.3 Recommendations -----	69
References-----	71-74
Appendixes-----	75-88

List of Tables

	Pages
Table 1: Sample size of students-----	34
Table 2: Characteristics of respondents-----	37
Table3: Classroom conditions and suitability/availability of playgrounds or sport materials -----	38
Table 4: An instructional methods and techniques teachers uses -----	40
Table 5: Teachers activities in the classroom -----	41
Table 6: Students activities during lesson time -----	43
Table 7: Frequency of employing different instructional methods by teachers -----	44
Table 8: The awareness of teachers towards active learning and its contribution for the learners -----	46
Table 9: Activities and roles that are expected from teachers and frequency of using these activities by teachers in classroom -----	47
Table 10: Teachers view towards the quality and availability of playground/instructional materials for practical classes of PE in implementing active learning -----	49
Table 11: Teachers responses towards number of students in class -----	51
Table 12: Training of teachers on teaching methodology particularly in implementing active learning approaches -----	52
Table 13: Problems encountered to apply active learning and sources of problems-----	54
Table 14: Students opinion on classroom conditions and facilities-----	55
Table 15: Students opinion about teacher's roles and activities during teaching-learning process in classroom -----	56
Table 16: Roles/responsibilities, and activities of students during active learning in classroom -----	58
Table 17: Students opinion towards teachers' presentation and teaching methods teachers uses -----	60

List of appendixes

	Pages
Appendix A-----	75
Appendix B-----	81
Appendix C-----	84
Appendix D-----	88

ACRONYMS

ALM: Active Learning Method

HDP: Higher Diploma Program

ICDR: Institutes for Curriculum Development and Research

MVPA: Moderate to vigorous physical activity

PE: Physical Education

ABSTRACT

The main purpose of this study was to investigate the application of active learning methods in some selected preparatory schools of West Arsi zone. To achieve this Shashamane, Arsi Nagele and Kuyara preparatory schools were selected as study area. The sample consisted of 239 students and 6 physical education teachers drawn from three preparatory schools. Regarding sampling technique, students were selected from each sample school by using stratified and simple random sampling technique. Physical education teachers were selected on the bases of availability sampling technique. The research methodology employed in the study was a descriptive survey. Questionnaires interview and observation were the major data gathering instruments used in the study. Percentage and descriptive phrases were used to analyze and interprets the data.

The results of the study revealed that the magnitude of applying active learning methods during physical education was found to be low. Almost all of the teachers employ lecture method mostly and frequently which more tends to teacher-led, the teachers did not take necessary training concerning teaching method and active learning methods, which enable them effective professional teacher and even though they believe in contribution of active learning for effective education, they lack awareness about those methods and how to apply in classroom. Beside this, the other factors identified were instructional materials and facilities were inadequate, low attitudes of students towards physical education, passiveness of students, lack of recently revised/updated physical education students' text books and large class size.

Based on the findings, conclusions were made and recommendations forwarded to alleviate the existing problems. Accordingly, physical education teachers should encouraged to become more knowledgeable and skillful in implementing active learning approach. This can be done through workshop, seminar, inter-staff discussion and by offering higher diploma program in the form of in-service training that facilitates sharing of idea to improve understanding of application of active learning. Schools and community together should strive to fulfill instructional materials and facilities, creating awareness on schools and students about physical education.

Key words:- Active learning, application, methods, implementation, instructional material, lecture method and contribution.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Education is the process through which students acquire knowledge, develop skill, change in behavior and formulate personality. Then, the quality of education in general and the quality of teaching learning process in particular realized when an effective instructional process is implemented at the school level in order to enhance effective teaching learning process and to make decisions expected from the teacher through setting clear objectives, selecting relevant content and learning experience, selecting varieties of teaching methods, utilization of instructional aid and implementing appropriate assessment techniques. The basic purpose of education during all periods of civilization, primitive to present has been and is to enable the individual to become a better citizen of a society (Knapp & Hagman, 1953).

Effective teaching and learning requires the use of various methodologies and pedagogies to meet the demands of the new generations, new techniques and the ever changing educational environments. The challenge is to find new ways to stimulate and motivate the creative abilities of today's generations who have different set of orientations towards learning more than most of us did as students. The traditional "chalk and talk" approach with the students as a recipient of knowledge may not suitable for today's generation. In the new approach to modern education, often called active learning, students not only receive information from lectures and book, they also collect information, record it systematically, discuss it, compare it , analysis it, draw conclusions from it and communicate about it (ICDR, 1999).

The new instructional model, active learning method intends to produce active and motivated learners who can cope with the demands of the modern world. Active learning methods encourage students' autonomous learning and problem solving skills. It provides pupils with greater personal satisfaction, more interactive with peers, promotion of shared

activity and team work, greater opportunities to work with range of pupils and for all members of the class, to contribute and respond (Capel et.al. 1995).

Active teaching and learning involves the use of different strategies, which are helpful in maximizing the opportunities for interaction. Indeed, some literature makes reference to “interactive” rather than active approach. In the active learning the learners have marked degree of freedom and control over the organization of learning activities which are usually problem solving, inquiry and investigational works. Similarly, Aggrawal (1996) has mentioned that the basic purpose of education is to enable the child to adapt him /her in a society, which is full of problems. Therefore, it is very important that problem solving skills encouraged in school learning.

In light of the above argument the new education and training policy of the Federal Democratic Republic of Ethiopia gives due attention for strengthening of the individuals` and societies` problem solving capacities at all levels. As stated in the policy (1994), one of the objectives is “to develop the physical and mental social well binges and problem solving capacity of individuals by expanding basic education for all”. But there is a great gap between the idea of the policy and its implementation (theory and practice). This is to mean that what has been stated in the policy might not be implemented practically due to some reasons. Supporting this idea, Lue, (2000), as cited in Fiseha (2001) by saying the following statements;

The kind of simple memorization and recall of facts and information (teacher-centered) still forms the basis of much of our curriculum and instructional materials which is very damaging intellectually to the young learners. This damage comes from the fact that, this approach restricts our young learners to the most very simple and elementary thinking skills and does not help them to develop higher order skills.

It is generally believed that, the impact of active learning in the teaching learning process is very crucial. To be effective in the teaching learning process, teachers must encourage different active teaching methods. Hence, current thinking and practice in education highly advocate the need to actively involve the learner’s in different active learning techniques for active learner-centered learning. However, educators have also suggested that there are some constraints, which can affect the proper application of active learning approach. Sguazzin and Graan (1998) have stressed that good and effective education in

the classroom demands a well prepared teacher, a competent teacher (both academically and pedagogically) and selection of best teaching strategies, activities and materials to achieve the objective.

The teachers in our schools predominantly use conventional types of teaching methods that are very familiar to them, perhaps even the ones that they themselves experienced when they were students at schools. More researchers support this idea. For instance, Marshal (1990) as cited in ICDR (1999) indicated that teachers use only a small number of methods, typically teacher talk, question and answer and text book assignments. Ambaye (1999) extended this argument by saying that all available evidences indicate that among many teachers in Ethiopia, the critical determination of effective teaching; namely knowledge of the subject matter, pedagogical skills and motivation are activity lacking. In addition to the above facts there also other factors that affect the application of active learning like curriculum material preparation and organization, improper classroom organization and management, students population pressure, problem with instructional materials and equipments and time allotment (specifically for physical education practical classes).

There are some factors that initiated the researcher to conduct research on the application active learning methods. First, the studies which have done by other researchers or the existing research knowledge in theory initiated the researcher to assess the application active learning in preparatory schools. Second, the Ministry of Education introduced those new instructional methods (i.e. active learning methods) to be implemented at all levels of education from primary to higher education institutions. But there is a great gap between the idea of policy and its application (theory and application). Third, the fact that knowing the concept of pedagogy, taking general methods of teaching course and updated trainings on methodology like higher diploma program (HDP) have great contribution for effective application of active learning method. However, the teachers of physical education who teach preparatory schools may lack the current HDP program, which might face them difficulties on the application of active learning method.

So, this study attempted to survey the application active learning methods, in specific reference to Shashamane preparatory school, Kuyara preparatory school and Arsi Nagele preparatory school that found in west Arsi zone in Oromia region.

1.2 Statement of the Problem

Active learning leads to effective teaching-learning and promotes the development of students' critical thinking and to make them alert in the teaching-learning process. As the interaction and active participation of students is one of the most important aspects of education process, it determines the effectiveness and qualities of education. Research findings show that, teachers as facilitators play great role in the class room in increasing the participation of students and improving the quality of education. Hence, preparatory school teachers are expected to implement (apply) active learning approaches to attain the desired goal of the education and training policy of Federal Democratic Republic of Ethiopia. However, it is hypothesized that, there are different hindering factors in the application of active learning approach.

As stated in the background of study, those factors have not been assessed to what extent they are affecting the application of active learning in preparatory schools. So that, the purpose of this study is examining the application level of active learning during physical education classes in west Arsi zone, particularly in Shashamane preparatory school, Kuyara preparatory school and Arsi Nagele preparatory school and identified the factors that affect the application of active learning. Finally, gave a feasible recommendation that encourages the application of active learning methodology.

1.3 Objective of the Study

The general objective of this study is to assess the application of active learning during physical education classes in Shashamane preparatory school, Kuyara preparatory school and Arsi Nagele preparatory school. More specifically this study has the following specific objectives.

- To identify whether the teachers` use a variety of teaching approaches and techniques or not.

- To know the teachers' belief on the conduciveness of instructional materials for the application of active learning.
- To identify the teachers' awareness on active learning and its contribution for students' learning.
- To check whether the classroom conditions promote the application of active learning.
- To check whether the teachers' have taken appropriate training during their pre-service and in service training concerning active learning instructional strategies.
- To find out factors that highly influences the application of active learning approach.

1.4 Research Questions

In order to attain the above stated objectives, the following basic research (basic) questions were raised to be answered in the course of study.

- ❖ Do teachers' use a variety of teaching approaches and techniques?
- ❖ Do teachers' believe that the instructional materials are conducive for the application of active learning?
- ❖ Do teachers' have awareness on active learning and its contribution for students' learning?
- ❖ What does the classroom condition looks like in promoting effective application of active learning method?
- ❖ Have teachers' taken appropriate training during their pre-service and in-service training concerning active learning instructional strategies such as like in the form of higher diploma program?
- ❖ What factors highly influence the application of active learning?

1.5 Significance of the Study

It is obvious that, the quality of instruction which is realized through effective teaching and learning determines the quality of education. Assessing the application of active learning approach in some selected west Arsi zone preparatory schools is the main

purpose of this study. Accordingly, the researcher believes that, this study have the following significances.

- It will help the teachers to undertake self-assessment regarding their usual teaching method.
- It will show the level of practicality of activate learning application in those preparatory schools.
- It will indicate the importance of the participation of teachers, students and educational experts in creating favorable condition for the application of active learning approach.
- It may initiate other researchers to conduct similar study at a wider scale and serves as a stepping stone for further research in the field.

1.6 Delimitation of the Study

The researcher believes that, it could be better to conduct the study in large scale. However, due to time constraint, the researcher delimited the area of the study only in some selected governmental preparatory school of west Arsi zone. Those are Shashamane preparatory school, Kuyara preparatory school and Arsi Nagele preparatory school. Even though, those preparatory schools have grade 11 and grade 12 students, the study is delimited to grade 12 students and only on physical education teachers. The study is focused on instructional strategies that are frequently used by physical education teachers on teachers' awareness, training, the conduciveness of educational materials, the classroom conditions and time allotment for the subject to implement active learning approach. In general, the study is delimited to the application of active learning in those mentioned schools.

1.7 Limitations of the Study

The researcher strongly agrees that the inclusions of large population size in the study could have a great value so as to elicit more credible information. However, because of time and financial constraints the researcher was not able to conduct such in depth broadly study.

1.9 Operational Definition of Key Terms

Application: - the process of putting a method or the practical use method in a class room.

Active learning: - refers to the active involvement of the learners on different learning tasks with in and out of the class room such as group work, role play, discussion, field trip and problem solving.

1.8 Organization of the Study

This study is organized in five chapters, chapter one is about the problems and its approach, back ground of the problem, statement of the problem, objective of the study, significance of the study, delimitation of the study, limitation of the study and definition of operational key terms. Chapter two is about review of related literature. The study design and methodology used were stated and described in chapter three. Chapter four is about data analysis and interpretation. The last Chapter five contained, summary of findings, conclusions, and recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter focuses on review of related literature and research findings, which lays the conceptual framework on the instructional approach in general and active learning methods in particular. Specifically, under this chapter the researcher gather some literature that related to the research title application of active learning during physical education.

2.1. Origin of Active Learning

The development of methods of teaching has been traced back to ancient Greece in various literatures. The most long-lived and widespread set teaching methods are those associated with the study of language and literature, Singh, 1986 (In ICDR, 1999). Ancient educational methods emphasized memorization and analogical reasoning, a form of reasoning in which one thing is inferred to be similar to another thing in certain respect, on the bases of the known similarity between the things in other respects.

The scientific approach to teaching methods began in the 16th century by the Czechoslovakian educator J.A Comenius and developed further by educators like John Heinrich, Pestalozzi, Rousseau, Forbiel and Firedrich Herbart.

2.2 What Is Active Learning?

Active learning refers to techniques where students do more than simply listen to a lecture. Students are DOING something including discovering, processing and applying information. According to Chet et.al (1993) active learning is derived from two basic assumptions:

1. That learning is by nature an active endeavor and
2. That different people learn in different ways.

On the basis of these assumption they extended their argument that students learn best when apply in subject matter i.e. learning by doing. Furthermore Bonwell and Elison (1991) defined active learning as “any strategy that involves students in doing things and

thinking about the things they are doing.” Sguazzin and Graan (1998) explained active learning as a social process that emphasize on the process of collaborating and the exchange of ideas, knowledge, skills, values and attitudes. Thus different active learning methods create the best match for students to learn how to learn. Quite simply, it is involving students directly and actively in the learning process itself. This means that instead of simply receiving information verbally and visually, students are receiving, participating and doing. So in simple terms, active learning is engaging students in doing something besides listening to a lecture and taking notes to help them to learn and apply course material. Students may involve in talking and listening to one another, or writing, reading and individually. In addition to the above definition there are also some experts those define active learning. For instance, Silberman (1996), define, when learning is active, students do most of the work. They use their brains ... studying ideas, solving problems, and apply what they learn. Active learning is fast paced, fun, supportive and personally engaging ... to learn something well, it helps to hear it, see it, ask questions about it, and discuss with others. Above all, students need to do it figure things out by themselves, come up with examples, try out skills, and do assignments that depend on the knowledge they already have or must acquire. Aggrawal (1996) also define, active learners energetically strive to take a greater responsibility for their own learning. They take a more dynamic role in deciding how and what they need to know, what they should be able to do and how they are going to do it. Their roles extend further in to educational self management, and self motivation becomes a greater force behind learning. Active learning is an approach to learning that involves the student as his/her own teacher: active learning is an approach not a method.

Generally, active learning methodologies do not look like the traditional lecture method. Active learning methods emphasize learning by doing. Group of students may be found working together on project to develop or study something having discussion, solving problems and practicing skills etc.

2.3 Advantage of Active Learning

As Silberman (1996) states, active learning clearly addresses the different learning styles of the students which many educators have realized. Active learning prepares 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. Another educator, Kyrincou (1998) mention the following educational benefits of active learning activities.

- They are intellectually more stimulating and thereby are more effective in eliciting and sustaining pupil motivation and interest in the activities.
- They are effective in fostering a number of important learning skills involved in the process of organizing the activities, such as when pupils organize their own work during individualized activities and interaction and communication skills during cooperative activities.
- They are likely to be enjoyed, offer opportunity for progress are less threatening than teacher talk activities and their by foster more positive attitudes in pupils towards themselves as a learners and toward the subject.
- Cooperative activities in particular enable pupils to obtain greater insight in to the conduct of the learning activities through observing the performance of their peers, sharing and discussing the procedures and strategies.

In line with the above ideas, ICDR (1999) lists some basic points on why active learning is considered to be important. These are;

- ✓ Teaching is effective only when students are learning.
- ✓ Learning is effective only when it is meaningful to students.
- ✓ Learning 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.
- ✓ It is to damage young learners when tries to teach them only by giving facts. Because it's preventing meaningful learning.
- ✓ Learning facts alone does not prepare students to understand their environment function effectively in it, it does not prepare them to understand and participate in the complex world.

- ✓ Learning 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.
- ✓ Students must be encouraged not only to learn facts but also to investigate, to understand the world around them, to analyze, draw conclusions and communicate in other words, to think deeply.
- ✓ We must encourage students to use higher order skills (analyzing, comparing, drawing conclusions) and more away from the exclusive use of lower order thinking skills which is 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.

This handbook, further elaborates why active learning focused method and activities are useful to promote effective learning in the following ways:

- ✓ We all remember much more when we are active when we are participate.
- ✓ We all become more enthusiastic learners when we are active.
- ✓ Active learning is particularly important for younger learners.
- ✓ The young learners learn best when they can connect what is being learned with their own life; this makes it meaningful.
- ✓ Activities help to make meaningful connections.
- ✓ Learning how to learn or thinking is more important than memorizing facts.
- ✓ Active learning leads to long last knowledge.
- ✓ Active learning encourages participation, analysis and critiques, which are higher, order thinking skills.

In addition to the above advantages of information retention many research studies show that there will be improvements in:

- Student-student interaction
- Academic skills
- Academic achievement (i.e. grades)
- Communication skills
- Higher-level thinking skills
- Team work
- Attitude towards the subject and motivation to learn.

Research indicates that active learning increase motivation and attendance. It reduces competition and isolation in the classroom by involving all students and having every one learning to work together cooperatively. Due to the highly interactive nature of this kind of learning, students are constantly giving and receiving immediate feedback. As result they feel their contributions are valued. Active learning also seeks to tie in their own life experiences an excellent way of liking to prior learning which in turn help to increase long-term retention of the material (Bransford, 1984). It is also very effective at developing higher-order thinking skills like analysis, synthesis and evaluation. Ultimately it can even inspire and motivate students to become self-directed, life-long learners (Bonwell and Elison 1991).

2.4 Some Active Learning Approaches

To be effective in the teaching-learning process, teachers must use different active learning methods. Because current thinking and practice in education highly advocates the need to actively involve the learner in different active learning techniques for active learner centered learning. Some techniques were explained below:

2.4.1 Cooperative Learning

According to Slavin (1978) cited in Eggan and Kauchak (1989), the term cooperative learning refers to instructional methods in which students work in small groups (usually four to six members) and rewarded in some way for performance as a group, it occurs

when students are given opportunities to work together on a task which allows them to make meaning for themselves or practicing/ applying what have just learned.

Furthermore, Eggen and Kauchak (1989) pointed that, cooperative learning is a generic term for teaching strategies designed to foster group cooperation and interaction among students. Cooperative learning strategies are specifically designed to encourage students to work together and help each other toward common goals, and because of this, they have been found to successful in fostering positive inter-group attitudes in multicultural classrooms. Cooperative learning activities serve a variety of purposes. Firstly, students have opportunities to more actively participate in the learning. Secondly, through the experience of working with others, they are able to develop sharing information and experience, to promote socialization and interpersonal skills, and to develop a sense of sensitiveness.

2.4.2 Conducting Field Trips

One of the most common devices used for extending the classroom in to the community is field trip (Clark and Starr, 1991). Field trip, sometimes called excursion, is visit to some location other than the normal classroom for educational purposes. It's a method for building environmental awareness and interest and enables students to gain firsthand experience with materials and phenomena in their true natural relationship. As a teacher develops a greater realization of the importance of first hand observation and direct experiencing in the teaching learning process, the excursion assumes a leading role in the curriculum of the child.

2.4.3 Jigsaw Group

Divide a topic in to four or five, depending on the number of groups in the class. Give each group a different part to work on, example in geography, set each group the task of researching information about different factors of a country, for example climate, economy, natural resources, population growth. Each group to present their information in turn, there by building a picture of the country from the component parts (Addis Ketema Sub-City educational department, 2005).

2.4.4 Goldfish Bowl or Fishbowl

Ask for a small group of people to sit in the middle of a large circle comprising the rest of the group. Give the inner circle a task to do that involves discussion, problem solving, or discussion making, with the group around the outside acting as observer. Decide of substitution process to allow someone from the inner circle to replace someone from the outer circle, if both agree (Addis Ketama Sub city educational departments, 2005).

2.4.5 Cross-over Group

After a group discussion, ask one or two people from each group to exchange places with people from another groups. They could rotate clockwise around the room if there a lot of groups. Then get them to share the discussions of the previous group with the new group (Addis Ketama Sub city educational departments, 2005).

2.4.6 Questions and Answers

This method is an effective way to hold attention and keep pertinent topics foremost in the students mind. It can be valuable in conjunction with other methods. In asking students to think up on questions we encourage them to think more deeply and to explore major themes comparison of views presented, applications and other higher order thinking skills (Daughtrey and Lewis, 1979).

2.4.7 Think-pair Share

It is a good techniques in generating ideas quickly, makes sure everyone understand the ground rules, no response is wrong, every response is accepted without discussion or argument, once brainstorming has elicited a sufficient number of response guide students to use.

2.4.8 Group Discussion

Is an activity for the entire class, or students may place in small groups to examine the assigned topics. To be effective, it's important that every person in the group has a role to play. The teacher should encourage the timed student to participate and not allow the talkative, extroverted student to dominate the discussions (Daughtrey and Lewis, 1979).

2.4.9 Role Playing

It is a method of acting out an imaginary but real-life situation. Here students are asked to “act out” a part. In doing so, they get a better idea of the concepts theories being discussed. Role playing exercise can range from the simple to the complex one. Role playing is all unrehearsed dramatization. Players try to act out what they would do and how they would feel in a certain situation (Clark and Starr, 1986) as cited in (ICDR, 1999); it is particularly useful for motivating and developing learners feeling and attitudes. It is possible to use role playing:

- a. To clarify attitudes and concepts,
- b. To demonstrate attitudes and concepts,
- c. To deepen understanding of social situations,
- d. To practice leadership and other social skills and so on.

2.4.10 Demonstrations

This technique may be used by the students or the teacher. It must be well planned, and the necessary equipment and materials must be ready at the designated demonstration site. Demonstration also provides a type of usual incentive that may enhance retention (Daughtrey and Lewis, 1979).

2.5 Some Methods of Teaching Practical Classes of Physical Education

The application of effective teaching of practical classes of physical education resulted in the characteristics sequences of explaining a skill, demonstrating a skill, practicing a skill, analyzing and correcting a skill, and evaluating the result of the skill performance. An analysis of current literature indicates that the changes of effective teaching are concentrated primarily up on methodology. The increasingly popular trends in the school program include individualized, prescribed instruction, role playing, programmed learning, diagnostic teaching, problem solving, independent study, teaching for specific behavioral objectives, self-check, discovery style to name only a few (Daughtrey and Lewis, 1979).

The implications of any teaching methods are determined by several factors. Methods are dependent upon age level, ability, classification, type of activity, purpose of activity, special problems of discipline, goals of the teacher, and the extent of federal legislation concerning race, sex and accommodating the handicapped (ibid).

2.6 The Role of Teachers, Students and Principal in Application of Active Learning Methods

2.6.1 The Role of Teachers in Active Learning Approach

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 able to select and use teaching strategies that produce learning. Broadly speaking many educators has strictly underlined that teachers play a crucial role in the application of active learning. As to Fiseha (2001) the teachers task in this approach is to use classroom 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. The common element in any form of active learning approach is that teaching is removed from teacher's role of standing at the front of classroom and presenting the material. Rather the students are placed in to the position of teaching themselves and the instructor is converted in to coach and a helper in this process. Active learning approach is based on the empirically proved hypothesis, that student's achiever superior academic results and even personal growth in terms of higher self confidence, openness to experience etc.

A learner centered approach requires a shift in roles and responsibilities, a different set of rights and obligations on the part of teacher and students. The role of the teacher in the classroom has shifted from the primarily role of information giver to that of facilitator, guide and learners. A facilitator teacher provides the rich environments and learning experiences needed for collaborative study. The teacher also is required to act as a guide, a role that interpolates mediation, modeling and coaching. According to Tnzmann et.al. (1990), the role of teacher can be expressed in three ways:

1. **Facilitator or facilitating:** involves creating rich environment and activities for linking new information to prior knowledge providing opportunities for collaborative work and problem solving and offering students a multiplicity of authentic learning tasks.
2. **Modeling** may involve thinking aloud (sharing thoughts about something) or demonstrating (showing student how to do something in a step- by step fashion) to figure out an information word, to represent and solve a problem, to organize a complicated information and so on.
3. **Coaching** involves giving hints, or cues, providing feedback redirecting students' efforts and helping them use a strategy. Generally, coaching is to provide the right amount of help when students need it, neither too much nor too little, so that students prepare as much responsibility as possible for their own learning.

In the student-centered classroom the teacher is expected to act as a resource for input. But not the only resource, input also provided by the students, by the material, and by the task itself. As Wassihun (2006) cited, there are many optional to the teacher in the student centered classroom in which the teacher tasks on the role of manager or a 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 of member if the students are losing track of their objectives. The teachers can suggest sources of consultation encourage and support the learning process, guide and direct as required and highly important provide critical feedback, both positive negative.

The teacher can also provide opportunities for students to evaluate their own and their peer performance, to reflect on the subject's matters and on the learning process itself, thereby promoting the acquisition of effective study skills. By understanding and taking responsibilities for learning, by acquiring the tools for self evolution, students become more autonomous and independent as learners. So that the teacher and learners relationship becomes more of partnership and teacher intervention decreases. Most importantly the teacher continuous to have a set of rights and obligation, including these

intervening in structuring and balancing the learning process and mediating the outcomes of the process.

Dirribsa (2005) also supporting the above ideas, the role of teacher in student centered classroom will become guides and mentor helping students access interpret, organize and transfer knowledge to solve authentic problems, while students gain expertise not only in the content areas being studied, but also in learning. In fact teachers become more than guide in the side of helping to find answers to real life problems.

As to Hofstetter (2005) the role of teachers in active learning is to facilitate the students learning by providing a frame work (i.e. activities students to complete) that facilitates their learning. For example, the teacher posts activities or questions that students complete, Projects including writing papers, essays and reports, conducting research, answering open ended questions, creating art work and organizing events. Hofstetter further explained that a constructionist teacher will begin a lesson by asking students to recall what they already know about the subject. Then they will involve students in an activity that will take them beyond what they currently know. The students must actively engage in the learning process by doing something. The teacher become much more important in the students centered classroom (Lue 2000, cited in Fiseha, 2001), the teacher must guide and manage the activities: she/ he must make sure that all learners are working productively on the activities and must monitor the progress of the all learners.

According to Aggerawal (1996) the role of teacher in child- centered education may be sum up as follows:

- Motivating children (learners).
- Developing trust and confidence in children (learners) capacity to learn.
- Becoming as a resource for creating meaningful learning experiences.
- Accepting the individual and the group
- Participating the member of the group in guiding learning.
- Recognizing and reinforcing the individual contribution.

- Becoming sensitive to the child's needs and interesting in a way that would provide a sense of feeling and security.

2.6.2 The Role of Students in Active Learning Approach

In the new approach to modern education, often called active learning, students 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 (ICDR, 1999). When they are given information and facts from their teacher or their text books, they are asked to do something active and creative with the information, analyze it, think about it, discuss it, and make reports on it (Hile and Kifle, 2000 in Fiseha 2001).

According to Aaronsohn (1996), even beyond learning what they need to know, students benefit from the method of teaching. They learn how to feel good about themselves. As they take on new responsibilities and succeed with the responsibilities they come to gain confidence in themselves as competent problem solvers.

Even more research shows that, students have higher achievement when they attribute success to their own abilities not to luck or help. In active learning approach, it is the students themselves who were responsible for the success of their own learning. According to Bernet et.al. (1995) one important student role is that exploration interaction with the physical world and with other people allows student to discover concepts and apply skills. Students then encouraged reflect up on their discoveries which are essential for the student as a cognitive apprentice. Apprenticeship takes place when students observe and apply the thinking process used by practice. Students also become teachers themselves by integrating what they have learned. Hence they become products of knowledge, capable of making significant contributions to world's knowledge.

It is true that student must do more than just listening to teacher and note taking. They must read, write, discuss or to be engaged in solving problems. Most importantly to be activity involved, students must engage in such higher order thinking tasks as analysis, synthesis and evaluation (Dirribsa 2005).

2.6.3 The Role of Principal in Applying Active Learning Methods of Teaching

Principal can be considered as prominent figure in the school system as he/she is the one who is assigned to lead all activities that go on in the school environment. It is a common experience that the school principals are responsible for both academic and administrative affairs in the school. With this issue, Moffet (1979), cited in Yonas (2006), for the effective application of active learning the principals also have a great role. Similarly, Sgazzin, and Graan (1998) argued that so as to apply (implement) active learning the management of the school, head department and others need to understand that, active learning is the building block of long life learning. The school as a whole should do everything possible to facilitate active learning. This may involve allocating funds for additional equipment, ordering books in sets to allow use by a small group.

Moreover, Mukales (1998) as cited in Sgazzin and Graan (1998) concluded that for any reform to succeed, we need effective school manager are supposed to provide necessary induction and continuous professional support to teachers. Teachers can only whole heartedly support reforms if they understand the need for it and know that they will be supported. This can only happen if the management of the school has vision encourages the involvement of the teachers and this can be achieved through extensive training (both pre-service and in-service programs). In light of this idea, Mukales extended his argument educational the need for principle training by saying as follows: Teacher's support in implementing educational policies and program could be improved if the managers of the school are properly trained.

In general, such arguments seem to be sufficiently convincing that a school principle should get appropriate training that enable him/ her to be competent enough in the full implementation of educational program in general and active instructional methods in particular.

2.6.4 The Role of Supervisor in Facilitating Teaching Methods

Supervision is the provided for the purpose of improving teaching and learning. The effectiveness of supervision depends on the skills and competence of supervision in

working with the entire staff classrooms teachers, specialist and administrators. Supervision is a cooperative services designed to did teachers rather than to report about them (Smith, 1961). The role of supervision and learning processes takes place in school. In addition, this activity demands the presence of competent, professional supervisors who can think ahead of time about the curriculum, methods of teaching and the school situation as all. The absence of trained and skilled supervisors retards school activities from positive progress.

Because school and teachers may lack the necessary timely feedback related to their performance that can facilitate and learning process. Teachers who are weak in their knowledge and skills of teaching may not get with the necessary training to enable them to do better works. It is important to understand that, supervision is a type of educational service rendered by a variety of school officials, head of department and special supervisors (Monere, 1956).

2.7 Factors Affecting the Application of Active Learning

There are some factors that can facilitates or hinder the application of active learning. Those are Human related factors and Non-human related factors.

2.7.1 Human Related Factors

2.7.1.1 The Training of Teachers

The success of educational process depends to a great extent on the characters and abilities of teachers. Teaching in the modern school must be vastly enabled to produce better educated person than was found formerly. Teaching demands the ability to adopt boldly, to invent, and to create procedures to meet the ever changing demands of learning situation in order to enable or to develop continues imaginative anticipation of mental process of the learner. Teachers must know much more about subject matter, method of teaching, the learners and his/her growth (ICDR, 1999).

A number of educators have confirmed that instructional strategies contribute a lot to promote effective learning. Nevertheless, their effectiveness depends largely upon the role and quality of the teachers who play a pivotal role in the teaching learning process.

Concerning this idea Mutassa and Wills (1995) have explained that instructional methods by themselves cannot do much to improve learning and thus, their value lies on the professional skill of the teacher in using handling them. In addition, Kakkar (1995) stressed that teacher is increasingly becoming the focus of interest because of the key role he/she plays in the delivery of quality education to the learner. Similarly, Sguazzin and Graan (1998) have stressed that good and effective education in classroom demands a well-prepared teacher, a competent teacher (both academically and pedagogically) and selection of best teaching strategies, activities and materials to achieve the objective.

However, educators have noted that there is a problem in teachers training programmes because they failed to relate theory with practice. Regarding this, Amare (2000) has explained that one could speculate (although this has to be confirmed through systematic investigation) a possible students exposure to the new perspectives in a teacher training program. The discrepancy could, however, explain partly by the conflict between what prospective teachers are told to do and what their instructors tell them to do. He extended his argument by saying in theory an instructor may advocate a two a two way communication in a practice he/she may limit it. In fact there are arguments that support the idea that student imitate more of what they see than that of what they hear and read. They imitate the action of their instructors and exercise selectively on what their instructors tell them to do.

In line with the above idea, ICDR (1999) supplemented that teacher educators are after strong proponents of reform in teaching. But they lack both analytical and practical experience with the kind of teaching they advocate. Even though they are taught about new strategies for teaching learning that drive from research and theory, teacher educators are not educated to teach in a that are different from how they were originally taught, nor did they educate to help others make such changes.

Moreover, ICDR (1999) supplemented the idea by saying teachers (instructors) teach the way they are taught. If teacher trainees learn mainly through the lecture method, this will be their main mode of instruction. If teacher trainees experience participatory methods they will tend to use them in their own teaching. Several studies indicated that “teachers should be taught by the same methods which will be expected to use them in their future

career” (Fried man, et.al 1959; Mulenda, 1970 in Ambaye, 1999) this calls for the trainees proper orientation and continuous on job training exposure to the career demands expected to him/her.

However, Ambaye (1999) noted that teachers in our current training institutes predominantly use conventional types of teaching methods, that they are familiar to them perhaps even the ones that they themselves experiences when they were students at schools. Several researches support this idea. For instance, Marshal (1990) as cited in ICDR (1999) indicated that teachers use only a small numbers of methods, typically teachers talk, question and answer and text book assignments. Ambaye extended his argument by saying all available evidences indicates that among many teachers in Ethiopia, the critical determination of effective teaching namely, knowledge of subject matter, pedagogical skills and motivation are actively lacking, although teachers are in the front line of education reform programmes.

Another scholar, Kakkar (1995) stated that the changing roles of the teachers and dynamics in education necessitate that the teachers must grow in profession and practice teaching through in-service education programs.

Generally speaking, as mentioned by Oslen (1976) teachers are expected to be knowledgeable, skillful and effective professional to teach the learners effectively.

2.7.1.1.1 The Higher Diploma Program (HDP) Training

This program is designed to meet the identified professional needs of teachers educators based on their characteristics that were revealed by the report ‘The Quality and Effectiveness of teacher education in Ethiopia (2002). One of the weaknesses revealed by the study is incapability of teacher educators to effectively employ the teaching approach and methods that are recommended by the policy. The aim of the program which is proposed to address the aforementioned problems that described as “... to improve the quality of education in Ethiopia through a licensing program that will develop the skill and professionalism of teacher educators” (Higher diploma program/HDP handbook 2004).

The HDP training for the teacher educators with aim of (among others) enabling teacher educators to use active learning and student centered teaching methods and become role models of good practice.

To sum up, HDP training have a great contribution for teachers and it makes them trainee skillful on different teaching methods approaches and techniques. It shows how teachers apply/implement active learning method. More over HDP is more helpful for teachers those who didn't take pedagogical training and general methods of teaching particularly.

2.7.1.2 Teachers Attitudes

Attitudes are also one factor that can facilitate or hinder the application of any educational program in general and active learning in particular. Teacher's attitude is the basic ground to act in positive or negative way towards persons, ideas or events happening in the environment. Most of educators are convinced that teacher attitudes are very important dimensions in the teaching process. A successful innovation depends substantially on teacher's attitude towards proposed curriculum alterations students with teachers of positive attitude towards teaching and the curriculum are found to be higher level achieves in learning (Keens, 1986). Many educators have asserted that the attitude of teachers and school principles towards active learning is determinate variable in their effective implementation.

According to Lue (2000) the teacher's attitude towards active learning largely depends on the epistemology they adhere. This is to mean that teachers who strongly support positivist epistemology assume that knowledge exists separate from the learners. The assumption is that the teacher is the source of knowledge and knows best. Indeed, learners are assumed to be "empty vessels" to be filled by the teachers. Thus, teachers and principals who are in favor of positivist epistemology could have negative attitude towards active learning. On the contrary, there are also teachers who view knowledge as it is produced through interaction between the learner and the around her/ him called constructivist epistemology. This interaction Therefore, learners should be active participants and active learners and the teacher's in this model is to use classroom methods that encourage the pupils to be active as possible through the use of higher order thinking skills, problem solving and communication based methods.

So many prominent writers focus on the importance of teacher's attitude to the real achievement of educational result. Selection and training provides qualified personnel to do each job. But to get the job the individual must also want work. What the immediate superior or towards their fellow workers, and towards other aspects of the job. Low moral can make a brilliant person to well- high- incredible feats (Walberg, 1986) as cited in Callhan, (1988), there may be many factors that contribute to low participation and negative attitude of teachers on the active learning in classroom. Few of them as Temechegn Endgida (2002); indicated as follows:

1. In adequate teacher training
2. Teachers' fear of losing their authority /control
3. Teachers' resistance to change

Therefore, teachers cannot be effective in their teaching unless and otherwise they have positive attitude to the subjects and approaches of teaching and even to his/ her learners. Negative attitudes may harm to the whole process of teaching, such as: The selection of content, methods, planning activities, mechanisms of evolutions and so on. A teacher with positive attitude and the necessary theoretical and technical knowhow is the one who can demonstrate the ability to bring about the intended learning out comes.

2.7.1.3 Students Knowledge and Attitudes

Any types of educational programmes and innovation that implement in school by the teachers, schools principals are to produce knowledgeable students with positive attitude toward their learning out come. The goal of any educational program is to produce knowledgeable students, to develop moral of student and more over to make students high achievement in their academics out come. The new instructional model, active learning intends to produce active and motivated learners who can cope with the demands of the modern world. Active learning methods encourage student's autonomous learning and problem solving skills. It provides pupils with greater personal satisfaction, more interaction with peers, promotion of shared activity and team work, greater opportunities to work with range of pupils, and for all members of the class to contribute and respond (Capel et.al. 1995).

In the traditional methods of teaching called “teacher- centered” teachers use very limited methods of teaching like, lecture, demonstration and explanation methods. In teacher-centered method, students are passive learner because during teacher lecture the lesson, the students are simple hearing and taking notes and the nature of this teaching method does not invite students as they actively participate and interact due to its limited to some method. In teacher- centered methods he/she is a teacher who use more time in classroom by lecturing. Therefore, due the teachers use similarly method all the time and due to lack of interaction, participation and encouragement the student’s may feel boring to the teacher lecturing method and student may lose attention to their learning. Students gradually develop negative attitude towards subject matters and method of teaching. It is fact that to be successful or to benefit from the learning student should have positive attitude towards subject matters and methods of teaching. It is fact in school of Ethiopia there are many students those exposed to negative attitude of subject matter as well as teaching method that remain students unsuccessful.

Therefore, it is the role of teacher making teaching effective, developing good attitude in his/her students by using different strategies of teaching, by treating all students equally, encouraging and by participating and involving learners into learning. Then they will have positive attitude and they will be successful in their learning.

2.7.2 Non- Human Related Factors

Like human factors, non-human factors are equally important variable that can wither facilitate or hinder the effective application of active learning.

2.7.2.1 The Physical Environment and Classroom Conditions

Silberman (1996) point out the physical environment in classroom can make or break active learning of course, no one set up or class arrangement is ideal; rather there are many options. The interior decorating of active learning is fun and challenging, when the furniture is less than ideal. If the furniture is moveable, it could be possible to use different lay outs for active learning even in the most traditional classroom.

The same author has suggested ten different types of classroom lay outs, which facilitate active learning approaches. These lay out include; U-shape, team style, conference table,

circle, group on group, work station, break out grouping, chevron arrangement traditional classroom, and auditorium. Moreover, Sguazzin and Graan (1998) have explained that in active learning communication is very important. The acts of the learner are doing learning and it may necessary for them to move around the classroom and even go outside to do part of an activity. This has two important implications for the classroom arrangement:

1. The arrangement of desks, tables should allow movement and communication.
2. The arrangement should be changed whenever necessary so that it is appropriate for the learning experiences that you have planned.

To sum up, the classroom condition should stimulate learning and allow for aspect of problem solvating and cooperative learning.

2.7.2.2 Class Size

Class size refers to the number of pupils regularly scheduled to meet in the administrative and instructional unit, known as class or section, usually under the direct guidance of single teacher (Monere, 1956). The class size has its own impact in facilitating or influencing activities of teaching and learning.

In fact there are arguments, which support the idea, the class sizes by itself has nothing to affect teaching and learning if teacher selects appropriate methods of teaching. But on the other side there are scholars who strongly favor the need for appropriate number of students in a class. The idea of class size is becoming a concern and an essential point of discussion among scholars because it assumed as the class size increase, students face any (or all) of the following problem as Gibbs cited in Barnet et.al (1995).

- Lack of clarity of purpose
- Lack of knowledge about progress
- Lack of advice on improvement
- In ability to support independent study
- Lack of opportunity to discussion

- In ability to motivate students.

Another author Smith (1996) has also mentioned the following disadvantage that come as the result of large class.

- Individualization of instruction is limited
- Instruction to be lecture without group participation
- Oral communication with in the classroom from pupil to pupil to teachers is minimized.

2.7.2.2.1 Class Size for Physical Education Practical Classes

The Texas Association for Health, Physical Education, Recreation and Dance supports the concept that a lower student-teacher ratio for physical education classes provides a safer environment and is more conducive to learning. Large classes put students at greater risk of injury as well as reducing learning and teacher feedback. Large class sizes inhibit the amount of moderate to vigorous physical activity (MVPA) for each student. It is recommended that at least 50% of every physical education class should be spent in MVPA. Large classes demand more time for organizational activities thereby reducing the time for physical activity (Darst & Pangrazi, 2006; Hastie & Saunder, 1991). Large physical education classes contribute to a decrease in student learning, a decrease in acquisition of motor skills.

Tozedv, Violsen, and Sense (1993), summarizes the effect of large class size on instructional process as follows:

Large class size leads to discipline problems, less involvement of students in different activities and little or no support to individual students. As a result of this, students may develop on atmosphere of disinterest in their learning because they don't know whether they did good or not.

In general, the number of students in a class can be a factor either to facilitate or to hinder the effective application of active learning. In fact for the effective application of active

learning it is more supportive and applicable if the number of students' small (few) in a class.

2.7.2.3 Instructional Materials

Instructional material is also one of the factors that either facilitate or influence the application of active learning. Instruction materials are all those materials that the teachers and students utilize in classroom and out of classroom, like text books, supplementary books, balls, playgrounds, gymnasiums and so on. Therefore, the availability or shortage of this material can affect the application of active learning. These materials are critical ingredients in learning and the intended curriculum cannot be implemented without them. There are also Medias through which teacher and pupils communicate with each other in an effort carry forward the learning process. These materials can make an excellent base for building interesting higher order learning activities that calls for critical thinking and other higher mental process (Callahan 1988).

Mukales (1998) classifies instructional materials into three categories (1) visual aids, (2) audio aids and (3) audio-visual aids. These materials are meant to enable learners to use more than one sense. Instructional materials enable to minimize the traditional centered method of teaching, which is dominated by the talk and chalk. In general, the presence of instructional materials and its quality of preparation may facilitate or hinder the application of active learning.

2.7.2.3.1 Instructional Materials for Physical Education Practical Classes

Physical education can be affected by number of factors in secondary school. Among them is the availability of instructional materials (sport equipment). Different research findings reveal that instructional materials are very crucial in facilitating effective learning.

Moreover, instructional materials are critical ingredient in learning and the intended curriculum cannot be easily implemented without them. They provide information,

organization the scope and sequence of information presented, and provide opportunities for students to use what they have learned (Lockheed et. al, 1991).

It is clear that, the type of the lesson and the nature of students call for adequate teaching materials used are not adequate and unsuitable, to the needs, interest and solving the problem of the students, the educational program designed to that particularly class will not successful. In this case, secondary schools of Ethiopia are characterized by shortage of instructional materials and other teaching equipment, especially play grounds. This reveals that, one of the major problems of physical education in secondary school is shortage of instructional materials which could affect both the work of teachers and students.

The facilities for physical education obviously affect what can be taught (choice of activities) and how it will be taught (teaching method). It is difficult to teach high quality of physical education in school without real physical education facilities. If the presents of appropriate facilities and equipment so that teachers can help students to achieve the full range of benefits within the subject matter such as physical education (Siedentop, 2001).

Facilities like play ground is important to physical education in high school to improve the quality of physical education and participation of students in physical education lesson.

Playground: is the cradle of democracy as games and sports are essential constituents of the total education. Every school should essentially have a due provision for the play grounds needed for all types of physical activities, sports and games, regular physical exercises. Therefore, enough area should be provided for the play grounds afford maximum number of games to the students. Due care should be taken for the maintenance of these grounds. A boundary wall should be constructed around them. There should also be provision for shady trees and grassy lawns (Singh V.K. and Singh Y.K, 2008).

2.8 Need of Modern Methods in Physical Education

The teaching-Learning process of physical education in school to be effective and to fulfill the desired objective needs modern method.

According to Singh V.K. and Singh Y.K. (2008) the need of modern methods in physical education:

1. There are many roads to successful learning to be tried for meeting particular needs and situations. To make the subject interesting, vital and living the teachers should also use permutations and combinations of methods, devices, and techniques for example to lend color to class teaching. He may use lecture or discussion method or a combination of these two. The teacher should be conversant with a variety of methods of teaching.
2. Different lessons or units should be taught by different methods of teaching. It can be very monotonous to use the same methods for every circumstance in the past few decades a tremendous increase in equipment materials, means and teaching procedures has been witnessed these should be utilized to provide variety and color to teaching physical education. To create and maintain their interest and avoid monotony children should be exposed to varied experiences.
3. No single method can be the best for all situations, and for all teachers and pupils. The suitable method should emerge out of the abundance of information and skill of the teacher. Good teacher know what to teach/ how to teach and understand the need of their pupils. In addition, they are able to communicate effectively, can plan for and organize classes efficiently and have a deep commitment to the optimal development of the pupil.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

This study is descriptive survey that examines the application of active learning in some selected governmental preparatory schools in West Arsi zones. The aim of survey design is to study the sampled population and be able to generalize the findings to the population from which the sample is drawn. The study focuses mainly on describing, identifying, analyzing and interpreting the current conditions that exist in relation to the application active learning methods and factors that hinder application of active learning in teaching physical education in Shashamane preparatory school, Kuyara preparatory school and Arsi Nagele preparatory school. Once the title of the research got acceptance and target of the study chosen, the next phase in research process is reviewing related literatures that relate with the title of the research. The related literature helps in determining what to look in selected preparatory schools and in the development of the instruments of data collection. So, the sources of the data were classrooms observations, students, physical education teachers and school director and the data from these sources were gathered through observation, interview and questionnaires. Simple random sampling was employed in filling questionnaires for students and for teachers available sampling technique was employed in filling questionnaires. The researcher used semi-structured interview school director. Once the data were collected from the stated sources, the next phase was to analyze, interpret and finally present (report) data.

3.2 Source of Data

Before conducting one research, the researcher must think about the sources of data. There are primary and secondary data sources. The researcher gathered primary data from the students, physical education teachers, and director/vice director to assess the application of active learning in those selected preparatory schools.

The secondary data were obtained from written documents or records such as previously done researches, books etc.

3.3 Sample Size and Sampling Technique

While we conduct research it's obvious that data collected from the whole population makes the accuracy of research findings to be very high. But to do this one has to consider the characteristics of the population, time, financial and potential to decide whether to collect data from the whole population or select a sample. Therefore, considering these criteria the researcher took a sample from the population by using sampling procedure of the study.

The West Arsi Zone has a total of six preparatory schools. For the purpose of study, the researcher took three preparatory schools (Kuyara, Shashamane and Arsi Nagele preparatory schools) as sample by using purposive sampling techniques. Because these preparatory schools have long years experience in the zone and the researcher also familiar to the research sites, that helps him to get the required data or information in detail. It is obvious that a preparatory school contains grade 11 and grade 12. Among those grades, the researcher selected grade 12 students by using purposive sampling, because, the researcher believed that grade 12 students were more mature, adopt the school environment and familiar with their teachers' methodologies and cover a broad areas and depth, which provide the required data. Also they are better experienced and they may know more on "what and how" their teacher use teaching methods and techniques during teaching learning process in the classroom.

There are 6 physical education teachers, 3 school directors and 3597 students as a total population in the sampled schools. However, the sample size is made of all (6) physical education teachers (2 from Shashamane, 2 from kuyara and 2 from Arsi Nagele preparatory schools) and 3 school directors by using availability sampling technique, since they are few in number. The information from school administrators indicates that, there are 1672 students in Shashamane preparatory school, 1450 students in Arsi Nagele preparatory school and 475 students in Kuyara preparatory school.

From these, the total numbers of grade 12 students in the sampled preparatory schools were 1590. Among these the researcher took 15% (239) of grade 12 students by using

stratified sampling with simple random sampling technique and the sample was drawn proportionally from each schools. The researcher put sample size in table below.

Table 1: Sample size of students

No	Preparatory schools	No. of grade 12 students	Sample taken
1	Shashamane	720	108
2	Arsi Nagele	692	104
3	Kuyara	178	27
Total		1590	239

3.4 Data Collection Instruments/Tools

In order to collect adequate and reliable data, the researcher were used the (Triangulation) methods that includes questionnaire, personal observation and semi-structured interview as data gathering tools.

Class room observation: observation is one way of data collecting instruments. In the application of an educational program, it is in the “class room” that all hidden and manifest intentions and efforts of education occur. Based on this, we can say that classroom is very important source of data collection in describing the implementation of an educational innovation. Therefore, classroom observations were taken as one of very important source of data in this study. The observation was taken place during physical education practical as well as theoretical classes. It takes place while the teachers were teaching both practical and theoretical part of the lessons. The class room observation guide format/check lists were developed by the researcher. Based on observation check-list a critical observations of the classrooms (both theory and practice) realities such as teaching methods of teachers employ, the major activities the teachers and the students perform, participation, interaction between teachers and students, the classroom conditions and other necessary facilities were observed two times (one theory and one practical classes) in each schools while PE teachers teaches in the class.

Interview: It is also a very useful instrument to understand reasons why and how things happen and the way they happening. The major way in which any researcher seeks to understand the perceptions, feelings and knowledge of people in programs is through in-depth and intensive interviewing. Some literature indicates that interview has three forms. These are structured, semi structured and unstructured. To gather more detailed information from schools director the researcher employed semi-structured interview. It is because these people are small in number and their position is important in describing whether an educational program is being implementing as planned or not. Thus, it is with this assumption that interview employed as a data gathering instrument for this study.

Questionnaire: Questionnaires is also very important instrument in the process conducting research for the collection of data. The questionnaires were designed as both open-ended and close-ended items. Two kinds of questionnaires were used one for the teachers and other for the students. The items in the questionnaires for teachers were focused on awareness, training and role of teachers for the application of active learning and frequency of teachers in practicing different teaching strategies, techniques and what and how they practice different activities and how they practices their students on different activities, exercises and tasks.

The items in the questionnaires for students were focused on what and how their teachers perform during teaching-learning process in the classroom, on giving tasks, activities and exercises, how their teachers attempt to practice them some activities, how their teachers attempt to participate students in real learning, their motivation, confidence and participation in the class room, what method of teaching their teachers use mostly. In general the same items for both teachers and students will match (relate) with each other, this means, the same items reflect in one another. This was done in order to cross check the accuracy of data.

3.5 Procedure of Data Collection

As long as the procedure of data collection is concerned, the researcher got through the following steps, so as to collect the relevant data. The first thing he done is getting permission from the director/coordinator of the school. After the researcher got permission, he distributed the questionnaires to the respondents, after precise introduction

so as to let them to know the purpose of the study. Next, the researcher was observed classroom activities (both theory and practical classes). Then the researcher were interviewed the schools director by preceding smooth introduction to create clear/good relation and got very relevant data. Finally, after data collected from respondents, the researcher addresses his acknowledge for all people those corporate him.

3.6 Method of Data Analysis

The data collected with the above mentioned instruments were presented in two forms. The first type of presentation was the discussion of the findings being sometimes supported by theoretical arguments. The other type of presentation was placing of responses mostly using percentages in tables, frequency of response in the table represent how many times a particular response appeared in different items. The data collected through closed-ended questionnaires were presented in percentage forms in the table and then the discussion of data thoroughly presented below the table in order to make clear and easily understandable to the reader, supporting by the theoretical arguments.

The other form is the data that was collected through subjective questions (open-ended) and interview was organized and presented in a form of paragraph being supported by theoretical argument.

CHAPTER FOUR

PRESENTATION, ANALYZE AND INTERPRETATION OF DATA

This forgoing part of the study deals with presenting, analysis, interpreting and discussing the data collected through observation, questionnaires and interview.

4.1 Background of Respondents

Table 2: Characteristics of Respondents

No	Items	Teachers N=6		Students N=232	
		No	%	No	%
1	Name of preparatory schools				
	A. Shashamane	2	33.3	106	46
	B. Arsi Nagele	2	33.3	102	44
	C. Kuyara	2	33.3	24	10
2	Sex				
	A. Male	6	100	180	78
	B. Female	–	–	52	22
3	Age				
	A. 15-20	–	–	179	77
	B. 21-25	–	–	53	23
	C. 26-30	1	17	–	–
	D. 31-35	2	33	–	–
	E. 36-40	3	50	–	–
	F. >40 years	–	–	–	–
4	Area of study (field)				
	A. Natural Science	–	–	149	64
	B. Social Science	–	–	83	36
5	Qualification				
	A. 1 st degree	6	100	–	–
	B. 2 nd degree	–	–	–	–
6	Teaching experience				
	A. 0-5	3	50	–	–
	B. 6-10	–	–	–	–
	C. 11-15	–	–	–	–
	D. 16-20 years	3	50	–	–

Key N= total number of respondents

As shown in table 2 above, 2 (33.3%) of teachers, and 106 (46%) of students, 2 (33.3%) of teacher and 102 (44%) of students and as well as 2 (33.3%) of teachers and 52 (10%) of students involved in the study are from Shashamane, Arsi-Nagele and Kuyara preparatory schools respectively. From the numbers of teachers involved in the study, all

(100%) are male and also from students involved 180 (78%) are males and 52 (22%) females.

Regarding age, the majority 3 (50%) of the teachers are found between 36-40 years of age and 2 (33%) are found between 31-35 years and the rest 1 (17%) are found between 26-30 years. On the other hand, the majority 179 (77%) of students are found between the age between 15-20 and the rest 53 (23%) of them are found between 21-25 years. From the number of students involved in the study, 149 (64%) are from natural science and 83 (36%) of the students are from social science.

Concerning qualification and teaching experience, all (100%) of the teachers were 1st degree holders and 3 (50%) of teachers have served from 6-10 years and the rest 3 (50%) of them have 0-5 years teaching experience.

4.2 Data Obtained from Classroom Observation

The table here below presents the classroom condition and suitability/availability of playgrounds or sport materials.

Table-3: Classroom condition and suitability/availability of playgrounds or sport materials as observed by the researcher.

No	Items	Yes		No	
		No	%	No	%
1	Is there enough seating space for all students in the classroom?	6	100	—	—
2	Are the chairs easily movable?	4	67	2	33
3	Is there adequate space for movement between desks?	6	100	—	—
4	Is the field attractive?	2	33	4	67
5	Is the class size appropriate?	2	33	4	67
6	The suitability and availability of different playgrounds in the school for practical activity?	2	33	4	67
7	The utilized facility and teaching materials are adequate and appropriate with No of students in the class?	—	—	6	100
8	Is there available different sport materials/facilities	—	—	6	100

KEY No= represents number of observed classes

As depicted in table 3, the data obtained from classroom observation proved that in the observed classrooms regarding seating space, (100%) there are enough seating space for all students and the chairs are easily moveable and it's appropriate for the application of active learning approaches. The observation item 3 in the above table shows, (100%) there is adequate space for movement between chairs; it's not difficult for teachers to give comment and advice to students during classroom activity.

Regarding the attractiveness of playground/field (67%) of observed fields are not attractive, but the remaining (33%) fields are attractive. Regarding the number of students in a single classroom, (100%) of the class size is not appropriate for the application of active learning. However, regarding class size, its more advisable if the number of students is below 30 in a single section for effective application of active learning. Appropriate class size helps in facilitating teaching-learning process at maximum level. However, the total number of students in a single section in those preparatory schools averagely was greater than 70. Monere (1956) stated that, without having appropriate population of students in a classroom, learning cannot occur properly. In line to this, Mutassa and Wills (1995) explained that the classroom condition should be conducive enough so that students feel free and comfortable to make group or move freely.

As shown in item 6 of table 3 above, (67%) of observation shows the presence of different play grounds except handball fields in sampled schools but those playgrounds were not suitable and comfortable to run/conduct different sport activities. The others (100%) of observed classroom shows the ratio of students with physical education student's text book was 1:1 but, for practical activities there was a shortage of sport materials/equipments.

In general, good classroom conditions, teaching materials and seating arrangement have a great contribution for the effective application of active learning in classroom.

Table 4: Instructional methods and techniques teachers' uses

No	Items	Yes		No	
		No	%	No	%
1	Teachers employ lecture method in the class	6	100	–	–
2	Teachers use cooperative learning strategies in the class	–	–	6	100
3	Teachers use jigsaw techniques	–	–	6	100
4	Teachers use gold fish bowl techniques	–	–	6	100
5	Teachers use cross-over techniques	–	–	6	100
6	Teachers use think-pair-share techniques	4	67	2	33
7	Teachers use brainstorming techniques	4	67	2	33
8	Teachers use pyramiding techniques	–	–	6	100
9	Teachers use different instructional methods to implement active learning	2	33	4	67

KEY No= represents number of observed classes

Effective teaching and learning requires the use of different instructional methods and pedagogy to meet the demands of the new generation, active teaching and learning involves the use of different strategies, which are helpful in maximizing the opportunities for interaction. Therefore, to be effective in teaching learning process, teachers must use different instructional methods. But in table 4, the observation results depicted that, all (100%) of the teachers employ lecture method which tends more to teacher-centered methods and (67%) of teachers use think-pair-share and brainstorming techniques. Other than these two or three strategies, they do not employ the remaining strategies that are listed in the above table.

What we conclude from this is that, almost all teachers employ teacher-centered teaching methods which are more focused in lectures. Therefore, when teachers employ lecture methods, the probability of students to interact as well as to participate in different activities will be low. However, the effectiveness of teaching-learning process requires the use of different instructional strategies that create opportunities to interaction like

cooperative learning, problem solving, cross-over group, pyramiding etc. Many scholars expressed that cooperative learning is helpful to encourage students to work together. Through this, students would be able to develop sharing information and experience, to promote socialization and interpersonal skills and to develop a sense of sensitiveness. Moreover, as many educators are stressed and described it that if teachers are on the position to help students to learn, they have to select and use teaching methods that produce learning. Therefore, to be effective in the teaching learning process, teachers must use different instructional methods and techniques. Thus, different active learning methods create the best match for students to learn how to learn.

Table 5: Teachers' activities in the classroom

No	Items	Yes		No	
		No	%	No	%
1	Teachers use energizer activities before starting lesson to relax, to make students alert (active) and to draw the attention of students	–	–	6	100
2	Use lesson plan	2	33	4	67
3	Clarify the learning objective	–	–	6	100
4	Arrange students for different classroom activities	2	33	4	67
5	Give direction about the procedure and activities	2	33	4	67
6	Encourage students to become actively participate in the class	3	50	3	50
7	Goes around the group and motivate the students	–	–	6	100
8	Has good interaction with students	3	50	3	50
9	Provide the right amount of help when they need	3	50	3	50
10	Provide opportunities for students to reflect on lesson and on the learning process itself	2	33	4	67
11	Give constructive feedback for students	–	–	6	100
12	Create meaningful learning experiences	–	–	6	100
13	Recognize and reinforce the individual contribution	2	33	4	67

In table 5 above, the classroom observations results indicated that, the majority of the activities which are expected to be demonstrated by the teachers were not observed. For instance, all (100%) of the teachers did not use energizer activities, clarify the learning objectives, goes around the group and motivate the students, give constructive feedback and create meaningful learning experience. About 67% of observations revealed that teachers did not use lesson plan, arrange students for different classroom activities, give direction about the procedure of activities, provide opportunities for students to reflect on the lesson and recognize and reinforce the individual contribution. However, feedback helps students to make progressive and positive feedback is a good motivator and creates a positive interaction between teacher and students.

Many educators have strictly underlined that, teachers play a crucial role in the in the application of active learning. As to Fiseha (2001) the teachers tasks in this approach is to use classroom methods that encourage the learners to be as active as possible by analyzing and interpreting knowledge through the use of higher order thinking skills. In addition, the teacher can suggest sources of consultation that encourage and support the learning process, guiding and direct as required and highly important to provide critical feedback and also provide opportunities for students to reflect idea on the lesson and the learning process itself. Moreover, in active learning, teachers have to create meaningful learning experience, because learning is effective only when it's meaningful to students. However, from the data which was obtained through observation, we can conclude that most activities, which are expected from teachers, were not implemented.

Table 6: Students' activities during lesson time

No	Items	Yes		No	
		No	%	No	%
1	Students are equally and actively participated and motivated in the tasks/activities given for them in the classroom	2	33	4	67
2	Students express their need and feelings freely	2	33	4	67
3	Listening to teachers lecture	6	100	–	–
4	Participate in group discussion	2	33	4	67
5	Ask teachers for help when some difficulties face them	–	–	6	100
6	Students are interactive among themselves	–	–	6	100
7	Reflect on the lesson and on the learning process it self	–	–	6	100
8	Are students appropriately grouped with the teaching facility and equipments	–	–	6	100

KEY No= represents number of observed classes

The instructional model of active learning intends to produce active and motivated learners, who can cope up with the demands of the modern world. So, to achieve this aim/goal, the roles of students are very important. The students should be interactive and actively participate in the classroom and out of classroom. Whereas the observations results indicate that the activities or roles that are expected from students were not observed well. This means, they are not attempting to convey the behavior of participation in activities of learning. Among six observed sessions, only (33%) shows the students participation and expression of their needs and feelings freely in the classroom. The rest (67%) shows that the students did not participate and express their needs and feelings freely in the classroom. Moreover (100%) of students did not ask teachers for help, not interactive and not appropriately grouped with teaching facility and equipments.

However, as expressed by different scholars, students are more active in their role as learners and are playing a major part in many aspects of the classroom activities.

Learning is meaningful only when students can use it, connect it, connect it to their lives or actively participate in it. In addition Silberman (1996) express that during active learning, the learner is seeking something to answer a question, information to solve problems, or do tasks while discussing with others.

4.3 Data Collected Through Questionnaires

4.3.1 Teachers Responses

Besides the observation made, questionnaire were administered to physical education teachers and grade 12 students to gather data related to the same issue with the observation check-list.

Table 7: Frequency of employing different instructional methods by teachers in classroom

No	Items	How often they employed ALMs					
		Always		Sometime		Not at all	
		No	%	No	%	No	%
1	Lecture	6	100	–	–	–	–
2	Discussion	–	–	6	100	–	–
4	Problem solving	–	–	–	–	6	100
5	Peer teaching	–	–	6	100	–	–
6	Cooperative	–	–	–	–	6	100
7	Brain storming	–	–	6	100	–	–
8	Think pair share	–	–	6	100	–	–
9	Demonstration	–	–	6	100	–	–
10	Discovery style	–	–	–	–	6	100
11	Jigsaw group	–	–	4	67	2	33
12	Pyramiding	–	–	–	–	6	100
13	Cross-over group	–	–	–	–	6	100
14	Practice	–	–	6	100	–	–
15	Group work	–	–	6	100	–	–

KEY No= represents number of respondents

As table 7 shows that, the frequency of teachers' in employing different instructional methods in classroom, all (100%) of the teachers' responded that they 'always' employ lecture method, which more tends to teacher led. In addition to teachers' response, the conducted observation result also confirmed that, almost all teachers use lecture method to deliver lesson for students. On the other hand, all (100%) of the teachers responded that they use discussion, group work, problem solving, peer teaching, think-pair-share, demonstration and brain storming 'some time' in classroom and 4 (67%) of the teachers use jigsaw group 'some time' in classroom. The rest of the teachers are not using different teaching methods, especially methods which tend more to active learning approaches like problem solving, cooperative, cross-over group, pyramiding and discovery style at all. The minority 2 (33%) of the teachers also did not use jigsaw group at all in classroom.

A large number of educators have confirmed that instructional strategies contribute a lot to promote effective learning. Nevertheless, their effectiveness depends largely up on the role and quality of the teachers who play a pivotal role in teaching learning process.

The implementation of effective teaching strategies is one of the criteria to be an effective teacher. If teachers are on the position to help students to learn, they must be able to select and use teaching strategies that produce learning. Active teaching and learning involves the use of different methods, which are helpful in maximizing the opportunities' for interaction.

Table 8: The opinion of teachers towards active learning and its contribution for learners

No	Items	Opinion of Teachers					
		Agree		Disagree		Undecided	
		No	%	No	%	No	%
1	Active learning enables learners to understand the ways of solving problems	6	100	-	-	-	-
2	Active learning creates a democratic relationship between the teachers and the students	6	100	-	-	-	-
3	Knowing the concept of pedagogy and methodological method of teaching PE course has great contribution for the effective application of active learning	6	100	-	-	-	-
4	Interaction and active participation of students is one of the most important for the effectiveness and quality of education	6	100	-	-	-	-
5	Active learning methods encourage students' autonomous learning and problem solving skills	6	100	-	-	-	-
6	Active learning creates the opportunities to share experiences and encourage friendship among the students	6	100	-	-	-	-
7	Active learning enhances self-confidence and independent learning	6	100	-	-	-	-
8	Students learn best when they actively involve and when they practice and learning by doing	6	100	-	-	-	-

KEY No= represents number of respondents

As indicated in table 8 above, eight items were presented to teachers to assess their opinions towards active learning applications and its contribution for the learners. The data reveals that, all (100%) of teachers responded that they agree in all items. From this idea one can understand that, all teachers believed in active learning and its contributions to learners is very high but, they may lack awareness and knowledge how to implement this active learning methods.

Table 9: Activities and roles that expected from teachers and frequency of using this activities by teachers in classroom

No	Items	Always		Some times		Not at all	
		No	%	No	%	No	%
1	Use energizer before starting lesson to relax, to make students active and to attract the attention of students	–	–	6	100	–	–
2	Use lesson plan	6	100	–	–	–	–
3	Clarify the learning objectives	–	–	6	100	–	–
4	Encourage students to participate in the classroom	6	100	–	–	–	–
5	Arranging students for different activities in classroom	6	100	–	–	–	–
6	Provide the right amount of help when students need it by giving hint or clues	4	67	2	33	–	–
7	Provide opportunities for students as they reflect idea on lesson and on the learning process itself	6	100	–	–	–	–
8	Continuously assess and gives feedback for students	6	100	–	–	–	–
9	Associate, relate the classroom lesson with the real life experience of students	–	–	4	67	2	33
10	Create activities /problems/ that requires higher order thinking and critical thinking skills.	–	–	–	–	6	100

KEY No= represents number of respondents

In the process of teaching-learning, it is the teachers' roles that make learning attractive and meaning full as facilitator. The table 9 above indicates that, the majority of the roles/activities that are expected from teachers are not as expected; for instance, energizer activities are used by all (100%) of teachers 'sometimes' in classroom. However, using energizer activities before starting lesson has a great contribution to relax learners, to make students alert (active) and to attract the attention of students. The other responsibility that is expected from every teachers is using lesson plan and all (100%) of the teachers responded that as they use lesson plan for every session. But in contradiction to this idea the observation results revealed that around 67% of the teachers did not use lesson plan.

However, as many educators agreed, every teacher has to use lesson plan in classroom in order to implement activities by keeping sequence. Because it's a lesson plan which the

teachers (address clearly the teachers' activities, students' activities and the objective of the lesson). Therefore, what we conclude from this data, the probability of teachers in applying active learning is rare. The absence of using lesson plan can influence the teaching-learning process partially. So, in order to make lesson plan effective and implement active learning teachers should have to use lesson plan.

Regarding arranging students for different classroom activities, in encouraging students, in inviting students to reflect their ideas on the lesson and on giving constructive feedback for students, all (100%) of teachers respondents responded that they perform these activity 'always'. Even though all of the teachers responded as they perform but the data obtained through observation partially contradict with it.

Also in the above table 9, item number 6 shows, 4 (67%) of the teachers respondents replied that they 'always' provide the right amount of help when students needs and the rest 2 (33%) provide the right amount help for students 'sometimes'. Majority 4 (67%) of the teachers responded that they 'sometimes' associate the classroom lesson with the real life experience of students but the rest 2 (33%) of the teachers did not. Therefore, this indicates the majority of the teachers totally focus only on the content of the subject matter. However learning is more meaningful for learners when teachers associate the lesson with the real life of students by using different examples. The other activities or roles that are expected from teachers are creating activities that require higher order thinking and critical thinking skills. However, as the table 9 item 10 above shows, all (100%) of the teachers responded that they 'not at all' creates higher order thinking activities for their students.

In general, as the result of observation and teachers responses indicated the majority of activities and roles are expected from the teachers were not as expected. Therefore, we can conclude that most of the activities which are expected from teachers were not implemented. However, as many educators, strictly underlined that teachers play a crucial role in the application of active learning. As Fiseha (2001) explained that the teachers' tasks in active learning approach have to use class room methods that encourage the learners to be as active as possible by analyzing and interpreting knowledge through the use of high order thinking skills.

Also in supporting this idea Hofstetter (2005) explained that, the role of teachers in active learning is to facilitate the students learning by providing a frame work (activities students to complete) that facilitate their learning. For example, the teacher`s post activities or questions that students complete project including writing papers, reports, conducting research and answering open-ended questions. The teachers must guide and manage the activities she/he must make sure that all learners are working productively on the activities and must monitor the progress of all learners.

Table 10: teachers' view towards the quality and availability of playground/instructional materials for practical classes of PE in implementing active learning

No	Items	Good		Moderate		Poor	
		No	%	No	%	No	%
1	Availability of different sport materials such as balls, javelin, shot put, hurdles, gymnastic apparatuses etc.	–	–	2	33	4	67
2	Availability of play grounds such as volleyball courts, basketball courts, football fields, handball field etc.	–	–	4	67	2	33

KEY No= represents number of respondents

Beside play ground observation, some items were presented to teachers in the above table, which assesses their views towards the availability and quality of playground/instructional materials to implement active learning. Concerning availability and quality of sport materials, majority of the teachers (67%) replied that the availability and quality of different sport materials that used for practical classes were 'poor' to implement active learning approaches, where as 2 (33%) of teachers responded its 'moderate' to implement active learning. As various researches have shown that, instructional materials have a great role in teaching learning process. Dale (1969) had argued that instructional materials create the access to world of reality, enhancing understanding and enriching experiences. Instructional materials also assist in making relationship between the real world and symbolic world. It's a process of bringing the world in to the classroom and the classroom in to the world.

Similarly, Amare (2002) explains the contribution of instructional materials as follow.

The presence of sufficient materials:

- Facilitate active learning;
- Relate theory with practice;
- Encourage creative thinking;
- Make learning more functional by increasing efficiency.

The facilities for physical education obviously affect what can be taught (choice of activities) and how it will be taught (teaching method). It is difficult to teach high quality of physical education in school without real physical education facilities. If the presents of appropriate facilities and equipment so that teachers can help students to achieve the full range of benefits within the subject matter such as physical education (Siedentop, 2001).

Regarding availability and quality of playgrounds, the majority 4 (67%) of the teachers respondents responded that the quality and availability of different playgrounds is 'moderate', where as 2 (33%) of the teacher respondents replied its 'poor'. Also the data obtained from observation was synonyms with teacher`s responses. Even though the play grounds were present it`s not good in location, quality and even some of them were not attractive and comfortable. But more or less it`s appropriate to implement active learning approaches. In line to this idea Mutassa and Wills (1994) explained that the condition of classroom should be conducive for the teachers and students so as to implement student centered (active learning) in classroom.

Also (Singh V.K. and Singh Y.K, 2008) explained that, play ground is the cradle of democracy as games and sports are essential constituents of the total education. Every school should essentially have a due provision for the play grounds needed for all types of physical activities, sports and games, regular physical exercises. Therefore, enough area should be provided for the play grounds afford maximum number of games to the students. Due care should be taken for the maintenance of these grounds. A boundary wall should be constructed around them. There should also be provision for shady trees and grassy lawns.

Table 11: Teacher's response towards number of students in one class

No	Items	Teachers responses	
		No	%
1	What is the average number of students in a class in your school		
	A. Less than 40	–	–
	B. 41-50	–	–
	C. 51-60	2	33
	D. 61-70	–	–
	E. 71-80	4	67
	F. Greater than 80	–	–

As indicated in table 11, teachers were asked about the average number of students in one class. Most of the teachers (67%) replied that the average number of students in one class is between 71-80 and the rest (33%) of teachers replied the average number of students in one class is between 51-60. In supporting this idea the observations results revealed that, the total number of students in a single section in those preparatory schools averagely was greater than 68. From this data one can understand that the average number of students is very big which may hinder the application of active learning methods. In supporting this idea Smith (1996) has also mentioned the following disadvantage that come as a result of large class size:

- ✓ Individualization of instruction limited
- ✓ Instruction to be lecture without group participation
- ✓ Frequency of repetition is limited
- ✓ Oral communication in the classroom from pupil to pupil to teachers is limited.

But in fact there is an argument, which does not support the idea; the class size by itself has nothing to affect teaching and learning if teachers select appropriate teaching methods which can involve students equally in the activity.

Table 12: Training of teachers on teaching methodology particularly in implementing active learning approaches

No	Items	Teachers responses	
		No	%
1	Have you attained methodology courses like general methods of teaching in your pre-service training A. Yes B. No	4 2	67 33
2	Did you get any in-service training since 1994 Ethiopian curriculum reform A. Yes B. No	5 1	83 17
3	If your answer for the above questions is 'Yes' the focuses of the training were on: A. Curriculum development/evaluation B. Instructional methods/ evaluating C. Both a and b D. Others_____	1 – – 4	17 – – 67
4	Since you have started teaching in this school, did you get any training on active learning instructional methods A. Yes B. No	– 6	– 100
5	Did you attend the higher diploma program (HDP) training? A. Yes B. No	– 6	– 100

Table 12 deals with teachers' background whether they have taken training on the area of teaching methodology particularly training related to active learning methods. The majority (67%) of the teachers' responded that they have attained methodology course like general methods of teaching in their university courses, where as the rest (33%) of the teachers does not attained. In the same table, teachers' were asked to report whether they got any training since 1994 the new curriculum reform in Ethiopia, 5 (83%) of the teachers responded that they got in-service training, where as the minority 1(17%) of the teachers responded that, they didn't got any in service training since 1994 new curriculum reform. For those who got training, questions were raised what was the focuses of the training; 67% of the teacher respondents replied that they got in service training with the focus of governmental policies and strategies and the rest 17% of the

teacher respondents replied that it focuses on the curriculum development and evaluation techniques. In addition to the above question teachers were asked whether they have took training on active learning approaches, since they have started teaching in the school, all (100%) teachers responded that they didn't take training on active learning approaches.

Moreover, as indicated in the above table 12, all (100%) teachers responded that, they didn't attend the higher diploma program (HDP) training. One of the aims of HDP is enabling teachers' to use active learning methods (ALM) and to become role models of good practice. Thus, the absence (lack) of necessary training for teachers made the work of teaching difficult and created low task performance in the classroom. However, the success of educational process depends to a great extent on the character and ability of teachers. Teachers must know about subject matter, method of teaching and learners (ICDR, 1999).

Similarly, Oslen (1976) mentioned that teachers are expected to be knowledgeable, skilful and effective professionals to teach effectively. So, in order to be effective, professional and in order to teach effectively, knowing the concept of pedagogy and taking training on the area of method teaching have a great contribution for the effective handling of the teaching learning process in general and for active learning in particular. In addition Sguazzin and Graan (1998) have stressed that, good and effective education in the classroom demands a well prepared teacher, a competent teacher (both academically and pedagogically) and selection of best teaching strategies, activities and materials to achieve the objective.

Generally, the above data indicated that almost all teachers didn't take the necessary training that enables them to implement active learning approaches. The observation results and the teacher's responses indicated that all teachers employ lecture method. This focuses more on teacher-centered. Whereas the rest teaching strategies that are more associated with active learning approaches were not employed by teachers and the majority of activities (roles) which are expected from teachers were not observed or demonstrated. Therefore, what we conclude from the above result is that it may be due to absence of necessary training.

Ministry of Education introduced new instructional method (i.e. active learning approaches which is student-centered) to be implemented at any level education from primary to higher education institutes and also introduced HDP with the aim to address the aforementioned problems and described it as “... to improve the quality of education in Ethiopia through a licensing program that will develop the skill and professionalism of teachers educators”. This HDP training for teacher’s educators with aim of (among others) enabling teachers educators to use active learning and student centered teaching methods and becomes role models of good practice HDP hand book (2004).

However, all (100%) of the teachers didn’t attend HDP training. Its fact that the absence of necessary training made the work of teaching difficult and forced teachers to give more focuses only the content of the lesson and to use only lecture methods by ignoring the other activities (roles) that are expected from them as teachers were not demonstrated in the classroom. Therefore, what we conclude from the finding is that the application of active learning in those preparatory schools during physical education classes is low.

Table 13: Problems encountered to use active learning methods and source of problems

No	Items	Teachers responses	
		No	%
1.	Are there problems you face in using active learning approach? A. Yes B. No	6 –	100 –

As indicated in table 13 above, teachers’ were asked whether they faced problems in applying ALM or not. All (100%) of the teachers’ replied that as they faced problems. The case may be rooted to the lack of necessary training on how to use different instructional methods. Those who replied “yes” were requested to mention the factors that limit the application of ALMs. Majority of them responded that lack of necessary training on how to teach and make students learn using different teaching methods and using active learning. Absence of training being constant, the other factors that teachers mentioned are;

- ❖ Shortage of teaching materials/resources

- ❖ Large class size
- ❖ Passiveness of students
- ❖ Lack of recently revised and updated books PE students textbooks
- ❖ The seating (chairs) not appropriate
- ❖ Attitudes of students towards PE and
- ❖ Time allotment for PE.

4.3.2 Response from Students

Table 14: Students' opinion on classroom conditions and facilities

No	Items	Yes		No		Not sure	
		No	%	No	%	No	%
1	Is your classroom condition or playground attractive and suitable for teaching-learning process?	66	28	166	72	–	–
2	Are the sports facilities like balls, athletics materials, gymnastics apparatuses and playgrounds are balanced with the ratio of students for practical classes of physical education?	32	14	172	74	28	12
3	Are the facilities like chairs conducive to make group discussion in classroom?	146	63	86	37	–	–

KEY No= represents number of respondents

Table 14 shows, the opinion of students about their classroom conditions and facilities. The data in this table indicate that (72%) of students responded that their classroom conditions are not attractive to learn and the rest (28%) responded that as they attracted by classroom conditions. Regarding sport instructional materials (74%) of the students replied that sport facilities like balls, gymnastic apparatuses and athletics materials are not balanced with the ratio of students for practical classes but (14%) of student respondents replied sport instructional materials are balanced with the ratio number of students and the rest (12%) of students replied as they are not sure. Also the last item in the above table shows the conduciveness of facilities (chairs), (63%) of students replied that the seating (chairs) are conducive to make group discussion in classroom.

Even though, the classroom conditions and facilities for theoretical classes of PE are conducive to make different activities in the classroom, the teachers were not observed while they carry out these activities. Therefore, even though the playground and sport instructional materials are not enough, attractive and suitable for practical classes of PE, the theoretical classroom conditions is more or less its conducive/ appropriate to implement active learning approaches in classrooms, but the teachers have a limitation in arranging students for different activities in classroom.

However, as many educators underlined that arranging and managing students seating and activities to implement active learning is mandatory. In general, classroom condition and facilities promote effective active learning. Mutassa and Wills (1994) for instance, explained that the condition of the classroom should be conducive for students and teachers, so as to implement active learning in classroom.

Table15: Students' opinion about teachers' roles and activities during teaching-learning process in classroom

No	Items	Yes		No	
		No	%	No	%
1	Does your teacher arrange students for different classroom activities?	115	49	117	51
2	Does your teacher give different activities and exercises regularly?	130	56	102	44
3	Does your teacher encourage students to become actively participate in the classroom?	148	64	84	36
4	Does your teacher provide opportunities for students to reflect their idea on lesson?	152	66	80	34
5	Does your teacher associate/relate the classroom lesson with real life experience of students?	112	48	120	52
6	Does your teacher invite students to share their real life that related with the lesson in the classroom?	66	28	166	72

As many educators strictly underlined, teachers play a crucial role in the application of active learning. Fiseha (2001) explained that teachers' tasks in active learning approaches

are to use teaching methods that encourage the learners as active as possible by analyzing and interpreting knowledge through the use of higher order thinking skills. The teachers can suggest sources of consultation that encourage and support the learning process, guiding and direct as required and highly important to provide critical feedback and also provide opportunities for students to reflect idea on the lesson and the learning process itself. Hofstetter (2005) identified that; active learning is to facilitate the students learning by providing a frame work (activities students to complete) that facilitate their learning.

However, as students' responses showed the teachers role/activities are unsatisfactory as expected (i.e. in carrying out those activities). As table 15 shows, almost around half (49%) of students replied that their PE teachers arrange students for different activities and also around (51%) of students replied PE teachers' do not arrange students for different activities during classroom. 56% of the student respondents responded that their teachers gives different activities and exercises regularly. Regarding teachers motivation, 64% of the students responded that, their teacher encourages students to become actively participant in the classroom and the rest 36% responded not encourage students. In opposition to students response, the result obtained from classroom observation does not support it; teachers attempt to encourage students in classroom were not as good. It may be lack of experience and training on how to teach by using different strategies and active learning approaches.

About (66%) of students replied that, teachers provide opportunities for students to reflect their idea on the lesson and the rest (34%) of students replied they were not give the opportunities for their students. 52% of the students responded that their teachers do not associate/relate the classroom lesson with the real life experience of students and the rest (48%) replied the opposite. Furthermore, (72%) of them replied that the teachers do not invite/give chances for students to share the real life experience to relate with the lesson.

Active learning emphasizes learning by doing, its students directly and actively in the learning process itself. This means instead of simply receiving information verbally and visually, students are receiving, participating and doing. So, it's the role of teachers to facilitate this to carry out activities effectively. The aim of active learning is to produce active and motivated learners who can cope up with demands of the modern world.

Therefore, in order to achieve these aims/objectives it's the teachers who has to play a great role as a facilitator and also to be effective in teaching learning process, teachers must use different active teaching approaches. Thus different active learning methods create the best match for students to learn how to learn.

Table 16: Roles and activities of students during active learning

No	Items	Students responses	
		No	%
1	Do you participate actively during teaching-learning process by asking questions and reflecting idea on the lesson in classroom?		
	A. Yes	186	80
	B. No	46	20
2	Do you have confidence in expressing your need and feelings freely in the class?		
	A. Yes	196	84
	B. No	36	16
3	Do you know the roles/responsibilities that are expected from students during active learning?		
	A. Yes	216	93
	B. No	16	7

In line with students' opinion about teachers' roles and activities, the students were also requested to respond on their activities and roles in classroom during teaching learning process of PE. As indicated in table 16, majority of students (80%) responded that they participating actively during teaching learning process by asking questions nor by reflecting ideas on the lesson, were as 20% of them responded that they do not participate. In opposing students' response, the classroom observation result is not similar with the students' response. There are only few students that participate in classroom. The respondents who said "No" were requested to mention the reason why they do not participate in classroom. As majority of them mentioned the main causes were, the method that their teachers employ do not invite them to participate, (which is

lecture/explanation), the teachers do not invite (motivate) them to participate actively, and few of them mentioned, as they do not participate due to less interest for PE subject and lack of confidence. Regarding self-confidence, majority of students (84%) responded that they have confidence in expressing their needs and feelings freely, but the rest (16%) have no self confidence to express their feelings.

In the same table, students were asked whether they know roles (responsibilities) that are expected from them during active learning PE in classroom. 93% of respondents reported that they know the roles (responsibilities) that are expected from them, whereas (7%) of students responded that they do not know the roles (responsibilities) that are expected from them during active learning in classroom. Simultaneously, respondents who replied “Yes” were requested to mention those roles (responsibilities) that are expected from them during active learning of PE classes. However, the roles that majority of students mentioned tend to the traditional methods (teacher-centered) such as, actively listening, not disturbing, hard study, not taking, wearing uniform, punctuality etc. Moreover, even though, the majority of students responded as they know their roles (responsibilities) in the implementation of active learning, the roles they mentioned were not related to the assumption of active learning. Therefore, this indicates that students have confusions on their roles (responsibilities) in the application of active learning in classroom.

However, the aim that active learning intends is to produce active and motivated learners, who can cope up with the demands of modern world, learners have marked degree of freedom and control over the organization of learning activities, which are usually problem solving, inquiry and investigational works. In addition as many scholars described it that students are more active in their role as learners and in playing major part in many aspects of classroom activities because learning is meaningful only when students can use it, connect it to their lives or actively participate in it. As Fiseha (2001) expressed it that, in active learning learners/students energetically strive to take a greater responsibility for their own learning. They play more dynamic role in deciding how and what they need to know, what they should be able to do and how they are going to it. Their roles further intend in to educational self-management, and self-motivation become greater force behind learning.

Table 17: Students' opinion towards teacher presentation and teaching methods he/she uses

No	Items	Students responses	
		No	%
1	Are the techniques and activities that your teacher uses during presentation is attractive and interesting to you? A. Yes B. No	115	49
		117	51
2	Does your teacher use different teaching methods during teaching-learning process in classroom? A. Yes B. No	88	38
		144	62
3	From the following teaching methods, which method (strategies) your teacher`s use mostly during teaching learning process? A. Lecture B. Demonstrations C. Discussion D. Group work E. Peer teaching F. Brain storming G. Cooperative H. Problem solving I. Pyramiding J. Think pair-share	144	62
		36	16
		46	20
		3	1
		3	1
		–	–
		–	–
		–	–
		–	–
		–	–

In the teaching-learning process, its teachers' activities and the techniques they use to make learning attractive and meaningful as facilitators during lesson presentation, so as to acquire the use of different techniques and activities to meet the demands of new generation. Therefore, it's the role of teachers to carry out those activities and techniques to achieve the demands of students in the classroom during lesson presentation and students feel interested and attractive towards his/her presentation.

As shown from table 17, about (51%) of student respondents reported that they are not interested with techniques and activities that teacher`s use during presentation and (49%) of students' responded that they are interested with teachers presentation. In addition to students' response, the classroom observation also supports the response of students. The teachers' techniques of presentation do not give attention to students' participation and does not motivate/encourage students. Therefore, the absence of this techniques and activities makes the students as they are not interested with teacher's presentation. Low

interest with the teacher's presentation makes students to develop negative attitude towards the subject and techniques of teachers use during presentation. Therefore, teachers have to use different techniques and activities which are helpful in maximizing the opportunities for interaction then the learners feel interested and attracted towards teachers presentation and be successful or get benefit from the learning. Students have to have positive attitude towards subject matter and method of teaching.

Regarding teaching methods, the majority (62%) of students responded that, their teachers not use different teaching methods, where as the remaining (38%) of students replied that teachers use different teaching methods. Also by supporting students' response, the data obtained from classroom observation and the teachers' response assured it that, the majority of teachers do not use different instructional strategies. Teachers tend use the talk and chalk method which is lecture. In the same table, students were asked methods of the teachers use mostly. Accordingly, the majority (62%) of students responded that their teacher use "lecture/explanation" during teaching-learning process, (16%) of student's responded demonstrations, (20%) of students responded group discussion methods mostly. However, instructional methods which are listed in the above table that more related with active learning were not implemented. The cooperative learning, think-pair-share, problem solving, pyramiding and etc are not employed during teaching-learning process. Therefore, a lot has to be done to effective implementation of ALMs during PE classes in those preparatory schools.

Finally, students were asked, to state or mention teaching methods that are appropriate and they need to learn by it. Accordingly almost all students mentioned similar response that they need; lecture, discussion, group work and few of them responded that demonstration, think-pair-share, peer teaching and cooperative methods. No one can mention problem solving and pyramiding methods. This indicates that the awareness of students towards active learning approaches is low.

4.4 An Analysis of Interview with School Directors

School directors can be considered as prominent figure in the school system as far as he/she is the one who is assigned to lead all activities that go on in the school environment. It's a common experience that a school director is responsible for both academic and administrative affairs in the school. Therefore, they have a great contribution for the effective application of active learning. Muffet (1978) as cited by Yonas (2006). So taking idea as a root, the researcher made interview with three school directors. Accordingly, through smooth introduction, the researcher conducted interview. All of those school directors were 1st degree holders and they have more than thirty years experiences in teaching and other position in the school. For the question that were presented for them to explain about the awareness (understanding) towards active learning, all of them explained that they have awareness about active learning and concerning why the educational training policy gives emphasis to active learning strategies, for this question their responses were summarized as the traditional methods gives more focuses for teaching than learning. In this case it's a teacher who does a lot in a classroom by lecturing where as students are passive learners and in teacher centered methods more focuses is in memorizing fact than applying what they learn and to enhance the quality of education.

Regarding teachers training on active learning sometimes the zones educational bureaus gives training for few teachers but PE teachers does not get the chance for attaining the training because, the reasons were the number of participants was limited in number. As to question associated with HDP training they replied that all of the teachers didn't take these programs. Concerning the availability of PE educational facilities almost all school directors knows as there is shortage of sport instructional materials especially for practical activities which may affect application active learning, but in the near future they are on the way to solve those problems. The last question rose to the school directors were about the major factors influencing the applicability of ALMs. Their responses were; lack of adequate training on teaching methodologies and shortage of instructional materials/recourses.

To sum up, the data showed that a lot has to be done to the effective application of active learning approaches during PE classes in those preparatory schools, particularly, training for teachers to improve the quality education. This can be done through intensive training, workshop and HDP programs.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

Teaching method is the pedagogy of how to deliver information to the students. Teaching method may be divided in the traditional (teacher-centered) and the modern (student-centered). Active learning approach intends to produce active and motivated learners who can cope up with the demands of the modern world. It is widely advocated method of instruction in our country. It is aimed at changing the teacher centered methods of teaching and will have its contribution in maximizing the learning efficiency and attention to learners.

It is generally believed that, the impact of active learning in teaching-learning process is very crucial. To be effective in teaching learning process, PE teachers must use different ALMs. Because current thinking and practice in education highly advocates the need to actively involve the learners in different active learning techniques for active learners centered and effective teaching and learning require the use of different methodologies and pedagogies to meet the demands of the learners. The purpose is, therefore, to examine the application of active learning methods during PE classes in Shashamane, Arsi Nagele and Kuyara preparatory schools. In order to achieve this purpose, the following research questions were raised:

- Do teachers use a variety of ALM approaches and techniques?
- Have teachers taken appropriate training during their pre-service and in-service concerning the application of active learning instructional methods or in the form of HDP?
- Do teachers believe that the instructional materials are conducive for the applications ALM?
- Do teachers have awareness on ALM and its contribution for the learners?
- What the classroom condition look like in promoting effective application of active learning?
- What factors highly influence the application of ALM?

The sources of data for the study were classroom observation, PE teachers, grade 12 students and school directors of the sampled preparatory schools. The obtained data from the sources were analyzed using percentage and discussion/interpretations. The results of the study revealed the following findings:

1. The classroom conditions, seating arrangements and furniture's, and the results obtained from observation check list and questionnaires revealed that the classroom condition is appropriate for the application of ALMs. However, the classrooms lay out are not arranged in a way to facilitate active learning. Regarding class size, it's more advisable if the number of students is few in a single class for the effective application of active learning. Appropriate class size helps in facilitating teaching learning process at maximum level. However, the observation result shows that the average number of students in a single class room is above 68.
2. As to sport instructional materials accessibility and qualities, the results obtained from observation, analysis and data obtained from teachers questionnaire reveal that there are scarcity of sport instructional materials specially for practical classes of PE, such as balls, athletics materials and gymnastics apparatuses. The availability of these instructional materials in encouraging students to enhance their knowledge and skills more tend to 'poor' in all three schools.
3. Availability and convenience of playgrounds contributes a lot for the effective application of active learning process of PE practical classes. Also the teachers' responses and observation results shows there are different playgrounds in the school compound except handball fields. But in terms of quality its less.
4. As to the instructional methods teachers mostly use, the observation result revealed that almost all of the PE teachers employ lecture method, which more tends to teacher-centred strategy. In line with observation results, the teachers and students responses also reveal the same result. Except few of them.
5. In process teaching and learning, its teachers roles/activities that make learning attractive and meaningful. However, the observation results indicated that, most of the activities/roles that are expected from PE teachers were not fully

- demonstrated (implemented). As a result the activities/roles that students perform or attempt were not satisfactory.
6. As to major reasons, which are accountable for low participation of students are; method of instruction, low level of teachers encouragement, lack of confidence and shortage of instructional materials.
 7. The PE teachers' awareness about active learning and its contribution was found to be moderate and they have positive attitude toward active learning.
 8. As to students attitude towards PE teachers presentation and teaching methods, the results of analysis obtained from students questionnaires revealed that the majority of students were not interested with the teachers presentation and teaching methods the teachers use.
 9. Taking the training in the area of methods teaching have a great contribution for the effective application of teaching learning process in general and for active learning in particular. In line with this idea, the result of this study revealed that the majority of PE teachers attained methodology course like general method of teaching in there undergraduate classes. Regarding in-service training, few of the PE teachers took in the area of curriculum development/evaluation; the majority of the teachers took other training which is about governmental policies and strategies. Moreover, regarding HDP program, the result of analysis revealed that all of the PE teachers did not attend HDP.
 10. As to major reasons accountable for the low application of active learning, the majority of PE teachers mentioned include lack of necessary training on how to teach and make students learn using different instructional methods and using active learning approaches, lack of awareness on different teaching methods and how to apply active learning, large class size, low attitudes of students towards PE, absence of recently revised and updated PE students text book and shortage of instructional materials.
 11. A school director is the key personal in the successful implementations of educational programmes. The findings of the study revealed that the school directors of those preparatory schools were found to be less competent in accomplishing most of the activities, which had been expected from them.

5.2 Conclusions

The application of active learning approach requires different interrelated human and materials resources without fulfilling these essential elements, realizing the expected objective is found to be difficult. Therefore, based on the findings the following conclusions were made.

1. An effective teaching method requires the use of different instructional methods and pedagogies to meet the different individual needs of the learners. In this findings however, the study revealed that almost all (100%) of the PE teachers employ lecture methods 'always'. Therefore, teachers use teacher-centered method which is lecturing and the probability of students to interact/participate in different activities is low.
2. The result of study revealed that the awareness PE teachers towards active learning and its contributions respond were found to be high. But there are numerous problems that tackle them to implement in classroom such as large class size, passiveness of students, absence of recently revised and updated PE students text book, lack of sport instructional materials and lack of necessary training on how to teach and make students learn using different instructional methods. Furthermore, from this result it can be deduced that most of the teachers are still with an ideology of teacher-centered approach.
3. A great number of educators have stressed that the conduciveness and accessibility of instructional materials play a crucial role for the effective application of active learning. Regarding these, the findings of the study revealed that, the majority (67%) of the PE teachers reported that the availability of sport instructional materials except PE students' text book is 'poor'.
4. The result of study revealed that, majority of students were not interested with their PE teacher presentation and mode they employ, thus it can be deduced this may lead students as they develop negative attitude towards the subjects and teacher. Moreover, the consequences of these bring failures in achieving goals.
5. The findings of study revealed that, most of roles and activities which are expected from PE teachers do not demonstrated (implemented). Thus this may

happen due to less orientation of the teachers on their roles and about application of active learning.

6. The interaction and active participation of students is one of the most important aspects of educational process, it determines the effectiveness and quality of education. However, the findings of the study revealed that participation and interaction of students is low. The major reason accountable for the low participation of students are; methods of instructional teachers use, don't invite them to participation which is lecturing, lack of confidence, shortage of instructional materials, low attitude towards the subject etc.
7. Scholars stressed that the condition of the classroom should be as conducive as favours the real implementation of active learning. Regarding this, the findings of the study depicted the classroom condition is more or less conducive for the application of active learning.
8. School directors are a prominent figure in the school systems as far as they are assigned to lead all activities that are going in the schools and successful implementation of educational program. However, the results of the study indicated that school directors of Shashamane, Arsi Nagele and Kuyara preparatory schools were low in accomplishing most of the activities that were expected from them. Therefore, it seems reasonable to conclude that the school directors were either less oriented about educational benefit of active learning or they were less committed to carry out the expected activities.

To sum up, the findings of the study shows improvements have to be done to effectively application ALMs in those preparatory schools. Teachers should be encouraged to become more knowledgeable and skillful in implementing active learning approaches. This can be done through workshop, seminars, inter-staff discussion, and by offering HDP in the form of in-service training that facilitates sharing of idea to improve understanding of application active learning.

5.3 Recommendations

Based on the findings of study, the following recommendations are forwarded, that might help to promote the application of ALMs and as a means to alleviate the problems encountered in the process of implementing ALMs in those preparatory schools.

1. In order to maximize the probability of students to interact as well as to participate in different activities and to be effective in teaching learning process and to help students to learn, PE teachers should use different instructional methods and techniques which are more tends to active learning like cooperative learning, problem solving, pyramiding, peer teaching etc. depending on the topic/lesson and need of learners rather than lecturing as much as possible.
2. It is important to update the PE teachers through in-service training to make them aware about active learning. HDP training has a great contribution to enable teachers' educators as to use active learning and student-cantered teaching methods.
3. The sport instructional materials should be developed in a way to enable learners enriches themselves in a knowledge and skill through active learning approach. This is to mean that, PE students text books should be updated in a way to have sufficient tasks, activities and exercises as to involve learner in different activities (as to be creative). To minimize the shortage of practical classes' instructional materials, it is recommended that the schools should have to work with NGOs and ministry of education for help. Schools and community together should strive to fulfil instructional materials and facilities for physical education.
4. It is recommended that school directors should be equipped with necessary knowledge and skill, which would enable them to play a crucial role in facilitating teaching learning process in general and the application of active learning in particular.
5. Physical education and sport professionals are advised to do the following; creating awareness about physical education on students and communities, become a positive role model for a fit and healthy lifestyle, so that others will be favourably influenced to emulate this life style. Make a commitment to conduct high quality programs that are sensitive to individual needs, so that physical

education potential to enhance the health and quality of life for all people can be achieved.

6. As to the major reasons accountable to low application active learning, majority of teachers mentioned were; lack of necessary training, lack of awareness, lack of recently revised and updated PE text books, students attitude towards PE, and shortage of instructional materials. Thus, to minimize these problems, it's already stated in the above recommended items directly or indirectly. In addition to above major problems majority of teachers mentioned large class size as a reason for low application of active learning in classroom. In fact large class sizes are the reality in most of Ethiopian schools today and this is likely to remain the case for some years to come. Even though, the teachers mentioned large class size as a cause for low application of active learning, there are opportunities (mechanisms) in which the teachers can practice active learning in large classes.

- ❖ Large class sizes by itself has effects in teaching and learning, but if the teachers selects appropriate teaching methods its nothing which can involve students equally.
- ❖ Instead of felling guilty about what cannot be done, teachers should explore and focuses on what can be done in well large classes.
- ❖ Ministry of education should design system to train teachers by emphasizing the methods and techniques that enable them to handled large class size.

Generally, as the findings of the study revealed that the magnitude of practicing active learning during PE classes in those preparatory schools was found to be low. Similarly, the degree of exercising different active learning instructional methods, techniques in those schools during PE classes was not adequate, due to the absence of necessary training on the area of active learning for PE teachers.

Thus, it is advisable that continuous and extensive orientation should be offered to the PE teachers, on both theoretical and practical aspects of active learning approaches including various techniques by Ministry of Education, so as to enhance their awareness and gradually shift their tendency from teacher dominated to learners focused toward instructional approach.

References

- Aaronsohn, E. (1996): Going Against the Grain, Supporting the Student Conferred Teachers, thousand Oaks, Darwin press.
- Addis Ketama Sub City Educational Departments (2004). AA.
- Aggrawal, J.C (1996): Principles, Methods and Techniques of teaching; Vial publishing house put New Delhi.
- Amare Asgedom (2000): Communication and media studies in curriculum studies, a study guide AAU Addis Ababa.
- Ambaye Tsehaye (1999): Curriculum evaluation: Monitoring the harmony of TTI syllabus with the new primary level curriculum vis-a-vis standard models and new education and training policy: "The Ethiopian Journal of Education" Vol. XIX.No.6
- Amenu Oljira (2005): The implementation of active learning approaches in teachers College of Oromia (MA Thesis).
- Bernet et.al (1995): Researching into teaching methods in colleges and universities, London kogan page.
- Bonwell, C and Alison A. (1991): Active learning: creating excitement in the classroom, Washington Dc; George, Washington University.
- Bransford, J.D. (1984): Human cognition; learning understanding and remembering, Belmont.
- Callhan Joseph (1988): Teaching in middle and secondary schools; planning for competence, New York Macmillan publishing company.
- Capel et.al. (1995): Learning To Teacher in the Secondary Schools. London Rutledge.
- Chet et. Al. (1993): Promoting active learning strategies for high school classrooms, San Francisco josses, Base.
- Clark, L. and Starr, I. (1991): Secondary and middle school teaching methods, (5th. Ed.) New York Macmillan.
- Clyd Knapp and E. Patricia Hagman (1953): Teaching Methods for Physical Education: USA: McGraw-Hall Book Company, Inc.

- Dale, E (1969): Audiovisual methods in teaching; 3rd ed. New York, Dry Den Press.
- Darst, P.W., & Pangrazi, R. (2006): Dynamic physical education for secondary school students (5th. Ed.). San Francisco, CA: Benjamin Cummings.
- Dirribsa Dufera (2005): Quality of teaching and learning in Ethiopian primary schools, AAU.
- Eggan, P.D. and Kauchak, P.D. (1989): Strategies of teachers; teaching content in thinking skill, Singapore: Allyn and Bacon.
- Fiseha Abrana (2001): Active Learning: MA Thesis (Unpublished) Materials, AAU
- Greyson Daughtrey and Clifford Gray Lewis W.B. (1979): Effective teaching strategies in secondary physical education (3rd. ed.) Saunders Company Philadelphia London Toronto.
- Hastie, P.A., & Saunder, J.E. (1991): Effects of class size and equipment availability on student involvement in physical education. The Journal of Experimental Education.
- Higher diploma program (HDP) (2004), Ministry of Education, A.A.
- Hofstetter, F.T. (2005): Cognitive versus behavioral psychology, University of Delaware, [Http://www. Udel edu/fth/Pbs](http://www.Udel.edu/fth/Pbs).
- Institutes for Curriculum Development and Research (ICDR) (1999). Teacher education hand book. Addis Ababa.
- Kakkar, S.B. (1995): Changing perspectives in education. New Delhi: Yikas Pvt. Ltd.
- Keens, Milton (1986): Exploring the curriculum science on schools. Philadelphia Open University Press.
- Kyrincou, C. (1998): Essentials of teaching skills, (2nd. Ed.), London: Nelson Thrones.
- Lockheed et. al. (1991): Improving Primary Education in Developing Countries. Washington: Oxford University Press.
- Lue. Elizabet (2000): Issue of theory and practice of curriculum developer and teacher education. Research package for seminar: BESO Project.

- MOE (1994): The Education and Training policy of the Federal Republic of Ethiopia, Addis Ababa, Ministry of Education (EMPDA).
- Moffet, Cardelia (1979) "The elementary principals, a first of perspective". Journal of theory in to practice. Vol.15 No.1
- Monere. Walters Editors (1956): Encyclopedia of education research, New York: Macmillan company.
- Mukales, J. (1998): Creative approaches to classroom teaching, New Delhi: Discovery.
- Mutassa, N.G. and Wills, G.M. (1995): Modern practice in education and science, Gaborone; Botswana.
- New Man, E. and Triggs, P. (1980): Equal opportunities in primary school, Bristol: Bristopoly techniques.
- Oslen. Hans, C. (1976): Teachers for changing schools, journal of theory in practice Vol.15 No.2.
- Sguazzin, T and Graan M.V (1998): Education Reform and Innovation in Namibia: How best can changes in class room practice be implemented and supposed: Proceeding from the 1998 NIED Educational Conference, Oka Handja 13-16 October, Namibia.
- Siedentop (2001): Introduction to Physical Education, Fitness and sport (4th.ed.). USA: Mayfield.
- Silberman, M. (1996): Active learning: 101 strategies to teach and subject, Boston: Allyn and Bacon.
- Singh R.P (2008): Introduction to Physical Education. New Delhi: Shree publishers and distributors.
- Singh V.K and Singh Y.K (2008): Physical Education Teaching Methods. New Delhi: Shree publishers and distributors.
- Smith, Edward (1961): The Educators' encyclopedia, Engle Wood: Prince Hellenic.

Temechegn Engida (2002): “Teaching primary school subject using learner center methodology in Ethiopia”, Journal of educational researchers association. Vol.1 No.1 AA.

Tnzmann, et.al. (1990): What is cooperative classroom? NCREL, Oats Brook.

Tozedv M. Steven E. Paul, C. Violsen Guyb B. Sense (1993): School and Society: Educational Practice as Social Expression. New York: McGraw Hill Inc.

Wassihun Deressa (2006): Implementation of student-centered method of teaching, (MA Thesis), AAU.

Yonas Amedemaskel (2006): Factors affecting the implementation of active learning, (MA Thesis), AAU.

APPENDIX A
ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
FACULTY OF LIFE SCIENCE
DEPARTEMENT OF SPORT SCINCE

Questionnaires for teachers

Dear teacher! The purpose of this questionnaire is to get pertinent information about application of active learning methods during physical education classes. The study can be successfully accomplished only when you complete items honestly and frankly.

Note: the information you give will be used only for academic purpose. So, please cooperate me by filling this questionnaire.

Thank you for your cooperation!!!

N.B: - No need of writing your name

A. General information

Please put a thick '✓' mark for the following items to indicate your answer, or by writing where necessary.

Part One: Background information

1. Name of your school _____

1. Sex: Male Female

2. Age: 20-24 years 25-30 years
 30-34 years 35-39years 40 years and above

3. Qualification: Degree Master PhD

 If any other, specify _____

4. Teaching experience in the school:

 0-5 years 6-10 years

 11-15 years 16-20 years 20 years and above

A. Main Data

I. Instruction: items related with different instructional methods (techniques) are listed in the table below. Please, select the correct answer that represents how often you have been employed these methods (techniques).

No	Teaching methods	How often you employed these ALMs		
		Always	Some time	Not at All
1	Lecture/command			
2	Discussion			
3	Group Work			
4	Problem Solving			
5	Peer Teaching			
6	Cooperative			
7	Brainstorming			
8	Think-pair-share			
9	Practice			
10	Cross over			
11	Pyramiding			
12	Jigsaw group			
13	Discovery style			
14	Demonstration			

II. **Instruction:** items related with active learning and the contributions of active learning for the learners are listed below. Please tick (✓) that reflect your opinion:

No	Items	Opinion of Teachers		
		Agree	Disagree	Undecided
1	Active learning enables learners to understand the ways of solving problems.			
2	Active learning creates a democratic relationship between the teachers and the students.			
3	Knowing the concept of pedagogy and methodological method of teaching PE course has great contribution for the effective application of active learning.			
4	Interaction and active participation of students is one of the most important for the effectiveness and quality of education.			
5	Active learning methods encourage students' autonomous learning and problem solving skills.			
6	Active learning creates the opportunities to share experiences and encourage friendship among the students.			
7	Active learning enhances self-confidence and independent learning of students.			
8	Students learn best when they actively involve and when they practice and learning by doing.			

III. **Instruction:** Items listed below are activities and roles of teachers that they have to use (employ) it during active learning in class room. How often you employ these activities:

No	Items	How often you employ		
		Always	Some Time	Not at all
1	Use energizer activities before starting lesson to relax, to make students alert (active) and to attract the attention of students?			
2	Use the learning objective?			
3	Clarify the learning objective?			
4	Arranging students for different class room activities			
5	Encouraging students to become actively participate in the class room?			
6	Provide the right amount of help when student need it by giving hint or clues			
7	Invite students to reflect their idea on the daily lesson and on the learning process itself?			
8	Give constructive feedback for students?			
9	Associate, relate and match the classroom lesson with the real life experience of students?			
10	Create activities (problem) that requires higher order thinking and critical thinking skills			

IV. **Instruction:** Items related with teachers believe (view) towards availability of instructional materials in implementing active learning:

No	Items	Alternatives			
		Good	Moderate	Poor	Absent
1	Availability of different sport materials such as balls, javelin, shot put, hurdle etc.				
2	Availability of play grounds such as volleyball courts, basketball courts, football fields, handball field etc.				

V. **instruction:** items related with the size and No of instructional materials with students ratio to implement active learning:

- What is the average No of students in one class in your school?

A. below 40 B. 41-50 C. 51-60
 D. 61-70 E. 71-80 F. Above 80
- The size of play grounds can serve large No of students in your schools?

Yes No Undecided
- The ratios of students to instructional materials are balanced for PE practical classes?

Yes No

VI. **Instruction:** Items related with training of teachers on methodology course and particularly in implementing active learning approach:

- Have you attained methodology course like general methods of teaching training in your pre-service training?

Yes No
- Did you get any in-service training on the new curriculum reform in Ethiopia since 1994?

Yes No

APPENDIX B
ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
FACULTY OF LIFE SCIENCE
DEPARTEMENT OF SPORT SCIENCE

Questionnaires for students

Dear students! The purpose of this questionnaire is to get pertinent information about application of active learning methods during **physical education classes**. The study can be successfully accomplished only when you complete items honestly and frankly. Thus, hence the genuine concern and willingness of the person who fill the questionnaire strongly determines the success of the study. You are kindly requested to fill all the questions honesty.

Note: the information you give will be used only for academic purpose. So, please cooperate me by filling this questionnaire.

Thank you for your cooperation!!!

N.B; - No need of writing your name

A. General information

Please put a thick '✓' mark for the following items to indicate your answer, or by writing where necessary.

Part one: background information of students

1. Name of your school _____
2. Sex: Male Female
3. Age: 15-20 years 21-25 years above 26years
4. Area of study(field): Natural Science Social Science

B. Main data

I. **Instruction:** item related with classroom condition and facilities:

1. Is your classroom condition or play ground (sport fields) attractive and suitable for teaching-learning process?

Yes No

2. Are the sports facilities like balls, athletics materials, gymnastics apparatuses and play grounds are balanced with the ratio of students for practical classes of physical education?

Yes No Not sure

3. Are the facilities like chairs conducive to make group discussion in classroom?

Yes No

II. **Instruction:** Items related with opinion towards teachers roles and activities during teaching learning process in classroom:

1. Does your teacher arrange students for different classroom activities?

Yes No

2. Does your teacher give different activities and exercise regularly?

Yes No

3. Does your teacher encourage students to become actively participate in the classroom?

Yes No

4. Does your teacher provide opportunities for students to reflect their ideas on lesson?

Yes No

5. Does your teacher associate/relate the classroom lesson with the real life experience of students?

Yes No

6. Do your teachers invite students to share their real life experiences that related with the lesson in the classroom? Yes No

III. **Instruction:** Items related to the role (responsibilities) that expected from students during active learning:

1. Do you participate actively during teaching learning process by asking question and by reflecting idea on the lesson?

Yes

No

2. If your response for question No 1 is “No” why you do not participate

Actively? Would you please explain? _____

3. Do you have confidence in expressing your need and feeling freely in the class?

Yes

No

4. Do you know the roles (responsibilities) that expected from students during active learning?

Yes

No

5. If your response for question No 4 is “yes” what are those roles (responsibilities) that expected from you/students? _____

IV. Instruction: items related with students opinion toward teachers presentation and teaching methods he/she uses:

1. Are the techniques and activities that your teacher uses during presentation is attractive and interesting to you?

Yes

No

2. Does your teacher use different teaching methods during teaching- learning process in classroom?

Yes

No

3. From the following teaching method, which methods (strategies) does your teacher use mostly during teaching learning process?

a. Lecture (explanation)

e. Peer teaching

b. Demonstration

f. Brain storming

c. Discussion

g. Think pair-share

d. Group Work

h. Cooperative

j. Pyramiding

i. Problem solving

4. From the above teaching methods by which methods of teaching do you need to learn?
Writedown: _____

Thank you in advance!!!

APPENDIX C

Observation check list

A. General information

1. Observer name: _____
2. School: _____
3. Grade and Section: _____
4. Number of students in class:
Male _____ Female _____ Total _____

B. Main data

Please mark (x) in space provided that corresponds to the statement (question) in column.

I. Items related with class room condition and suitability/availability of playgrounds or materials:

No	Items	Yes	No
1	Is there enough seating space for all students in the classroom?		
2	Are the chairs easily movable?		
3	Is there adequate space for movement between desks?		
4	Is the wall paint/field attractive?		
5	Is the class size appropriate?		
6	The suitability and availability of playgrounds in the school for practical activity?		
7	The utilized facility and teaching materials are adequate and appropriate with No of students in the class?		
8	Is there available different sport materials/facilities		

II. Items related with instructional methods and techniques teachers use:

No	Items	Yes	No
1	Teachers employ lecture method in the class		
2	Teachers use cooperative learning strategies in the class		
3	Teachers use jigsaw techniques		
4	Teachers use gold fish bowl techniques		
5	Teachers use cross-over techniques		
6	Teachers use think-pair-share techniques		
7	Teachers use brainstorming techniques		
8	Teachers use pyramiding techniques		
9	Teachers use different instructional methods to implement active learning		

III. Items related with teachers activities in the classroom:

No	Items	Yes	No
1	Teachers use energizer activities before starting lesson to relax, to make students alert (active) and to draw the attention of students.		
2	Use lesson plan.		
3	Clarify the learning objective.		
4	Arrange students for different classroom activities		
5	Give direction about the procedure and activities.		
6	Encourage students to become actively participate in the class		
7	Goes around the group and motivate the students.		
8	Has good interaction with students.		
9	Provide the right amount of help when they need.		
10	Provide opportunities for students to reflect on lesson and on the learning process itself.		
11	Give constructive feedback for students.		
12	Create meaningful learning experiences.		
13	Recognize and reinforce the individual contribution.		

IV. Items related with students activities during lesson time:

No	Items	Yes	No
1	Students are equally actively participated and motivated in the tasks/activities given for them in the classroom.		
2	Students express their need and feelings freely.		
3	Listening to teachers lecture.		
4	Participate in group discussion.		
5	Ask teachers for help when some difficulties face them.		
6	Students are interactive among themselves.		
7	Reflect on the lesson and on the learning process itself.		
8	Are students appropriately grouped with the teaching facility and equipments		

APPENDIX D

Interview for School Director

Basic guiding interview sample questions

1. Would you please tell us your qualification, position, and experience?
2. Would you explain your understanding (awareness) about active learning method?
3. Would you please explain briefly why the education and training policy give emphasis to the Active learning strategies?
4. Have your teachers took higher diploma program (HDP) or any training on Active learning method? If your answer is yes what kind of training they took?
5. How do you think the applicability of those trainings in real class room situation especially during physical education session?
6. How do you evaluate the availability of physical education educational facilities and quality in your school? Do you think the availability of this facilitation have an influence on active learning process?
7. Would you please explain the major factors influencing the applicability of ALM (active learning method)?