

**An Assessment of Practice of Active Learning Approach in Wolita
Sodo University Health Science College, Southern Ethiopia:**

The Case of Preclinical Classes

By

Biruh Alemnew

Addis Ababa University

College of Health Sciences

Department of Health Science Education

May, 2018

Addis Ababa, Ethiopia

Addis Ababa University
College of Health Sciences
Department of Health Science Education

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Sodo University Health Science College, Southern Ethiopia**

A thesis submitted to Addis Ababa University, College of Health Sciences in partial fulfillment of the requirements for the degree of Master of Science in Health Science Education,

By - Biruh Alemnew

Advisor

Mahan Kulasegram (PHD)

May-2018, Addis Ababa, Ethiopia

Addis Ababa University
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Approved by

_____	_____	_____
Chairman	Signature	Date
_____	_____	_____
Advisor	Signature	Date
_____	_____	_____
Examiner	Signature	Date

Acknowledgements

I would like to thank the almighty God for giving me insight in my life. This is also my interest to acknowledge the contributions of the following people.

First, my special gratitude goes to my advisor Dr. Mahan Kulasegaram for his unreserved encouragements and provision of constructive comments and guidance from the beginning to the end of my thesis work.

Then, I would like to express my gratitude to Professor Amaha Mekasha, Professor Brian Hodges and Dr. Cynthia Whitehead for their high cooperation during the whole process in conducting this research project.

My special thanks are still extended to all my classmates in this program for their constructive comments and important suggestion throughout the course of my research project.

Finally I want to thank the academic director, the deans, pre clerkship teaching staffs and public health officer students of Wolita Sodo University Health Science College, for their cooperation and unreserved help during the data collection time.

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Acronyms and Abbreviations

- AAU..... Addis Ababa University
- AIR..... American Institutes for Research
- FDRE Federal Democratic Republic of Ethiopia
- HDP..... Higher Diploma Program
- ICDR..... Institutes for Curriculum Development and Research
- MOE..... Ministry Of Education
- WSU..... Wolita Sodo University

Abstract

The main purpose of this study was to assess the practices of implementation of active learning approaches in Wolita Sodo University Health Sciences College. To meet the objective of the study, a convergent parallel mixed design was employed. Lottery method was used to select the department of public health officer, from which students were sampled. The academic director of the college, 21 preclinical teachers and all 81 students from the second batch of department of public health officer were selected using availability sampling technique. Quantitative data were collected from all students and teachers using structured and pretested questionnaire. The academic director and selected teachers were interviewed using interview guide. Data analysis was done in three phases. First, analysis of the quantitative data was done in SPSS Version 20 and percentages, means and frequencies were used. Second, qualitative data was analyzed considering the research questions, using framework coding which is a deductive approach. Finally, quantitative and qualitative results were merged. Almost all instructors and students had a positive perception of active learning. Teachers are practicing active learning sometimes but the level of their practice was not satisfactory. Lecture was found to be the most commonly employed teaching technique followed by individual assignments, group work/discussion and question and answer methods. Shortage of time, large amount of contents to be covered during one classroom and lecturers and students tendency towards the traditional lecture method were found to be the most serious factors among the problems that affects the practice of active learning negatively. It has been recommended that teachers should be committed to discharge their roles to exercise active learning methodologies. Additionally, to improve the level of implementation of active learning, the administration of the college should continuously identify and solve those problems by developing a working group in coordination with teachers, students and other stakeholders.

1. Introduction

1.1. Background of the study

Education is a universal practice through which students acquire knowledge, develop skill and change in behavior. The realization of objectives of any education requires effective teaching and learning process which in turn needs the use of different teaching methodologies to meet the demand of the new generation (ICDR, 1999).

Traditionally education has been viewed through the banking metaphor in which the bank is a learner's mind and the possessor of the knowledge is the teacher (Aggrawal, 2006). In this Teacher Centered traditional approach, students are passive recipients of knowledge which leads to students with good short term retention. People learn relatively little through passive learning methods. This approach may not be suitable for the current generation who lives in a dynamic world (Gezahegn, 2013).

In the relatively new approach to modern education, namely active learning, students are not viewed as passive recipients of passive information. It instead, students' agency to actively engage with knowledge (e.g. as record it systematically, discuss it, compare it, analyze it, draw conclusions from it and communicate about it etc.) is given priority (ICDR, 1999).

It is hard to provide universally accepted standard definition for active learning since different authors in the field have interpreted differently. However, it is possible to provide its definition in some generally accepted ways. As a most widely used definition, Bonwell and Eisen(1991), describes that active learning is a process in which students engage in "doing things and thinking about what they are doing" in the class room. We use the term 'Active learning' to describe that learners are active and more responsible in the learning process.

In Active learning approach Student engagement encompasses much more than traditional student behaviors of listening, reading, writing or calculating. To be actively involved, students are expected to engage in higher order thinking tasks such as analysis, synthesis, and evaluation. These methods leave students with a greater level of knowledge and better learning skills (Graffam.B, 2007).

On a medical and health science education side, Abraham Flexner (1910) said,

“On the pedagogic side, modern medicine, like all scientific teaching, is characterized by activity. The ‘student’ no longer merely watches, listens, memorize: he does. His own activities in the laboratory and in the clinic are the main factors in his instruction and discipline. Since education nowadays involves both learning and learning how; the ‘student’ cannot effectively know, unless he knows how.”

Many studies show that students learn more when they actively participate in generating knowledge than just listen. They must read, write, discuss and engage in solving problems (Austen & Wylie, 2006; Alemu, 2010).

Today, active student engagement in the learning process is increasingly perceived as one of the key indicators of quality education. Ethiopian Education and Training policy also promotes the implementation of active learning in all educational institutions including Universities (MOE, 2002).

Many instructors of health sciences receive little training as teachers. To improve the quality of education, in 2003 the Ministry of Education introduced a course for all teachers, known as the Higher Diploma Programme (HDP) (MOE, 2004). This course is for all academic staff in higher education institutions, as well as school teachers. A practice in active learning methodologies is one of the five major components of HDP.

Despite the policy and all other efforts, the teaching learning process in most Schools, Colleges and Universities in Ethiopia has persisted to be teacher centered and more akin to passive learning. There are many studies done in educational faculties regarding implementation of active learning approach. In most of the cases its implementation is found to be low and student's involvement during class was minimal.

Teshome (2012) and Gezahegn (2013) show that the implementation of active learning was low. In Teshome's study, he did a descriptive survey to examine instructors practice of active learning in Haramaya university and he founds that instructors have perceived active learning positively but their practice of active learning was low and Gezahegn (2013), in his descriptive survey in combined arms academy, founds that traditional lecture method is the most commonly employed method in the academy.

Challenges of implementing and evaluating active learning are thus common to Ethiopian schools and will likely face Wolita Sodo University. The university was officially inaugurated in 2008 and its college of medicine and health science is opened in 2010. Now the college is hosting many students in Medicine, Public Health Officer, Midwifery, Nursing, Anesthesia, Medical Laboratory Science and Pharmacy. As these professions expand in Ethiopia, better teaching and use of active learning principles will increase the effectiveness of graduates. However, to meet this core principle of teaching, we must understand how active learning is currently implemented and the barriers to doing effective student centered teaching practice.

Therefore, the purpose of this study was to assess the practices of the implementation of active learning approaches in Wolita Sodo University Health Science College. By doing so, I generate the necessary recommendations that may help the college and other similar medical and health science colleges on the effective implementation of active learning approach.

1.2. Statement of the Problem

In order to train health care professional who are competent, versatile and relevant to the need of the nation, it is very important to improve the quality of health sciences education. It is highly believed that introducing active learning strategies in health science education is the best way to improve the quality of education by making students intellectually active (Dent & Harden, 2013). It is also highly promoted by Ethiopian Ministry of Education to be implemented in all stages of education (MOE, 2002).

Many local studies were conducted to assess the implementation of active learning in different education faculties of Ethiopian universities. Most of the studies indicate that teachers have perceived active learning positively but despite the policy and all other efforts, their practice of active learning was very low. Based on their findings the major factors affecting implementation of active learning were instructor's tendency toward the traditional method, lack of student's interest, shortage of time, lack of instructional material and large class size though the relative effects of these factors were different for different institutions (Teshome, 2012; Gezahegn, 2013; Edo, 2012; Gara & Asrat, 2011). Despite this, there are also institutions in which research shows teachers are encouraging active learning well and challenges which are mentioned above were not issues (e.g. in Gondar and Begemeder Teachers College, North Ethiopia) (Yilma, 2014, Tedla & Sewasew, 2016).

Clearly, the level of implementation of active learning practices are different in different institutions and perhaps implementation is increasing over time. But to the knowledge of the researcher, there is no research work done in relation to implementation of active learning practices in Ethiopian universities medical and health science faculties. Thus, the context of Wolita Sodo University Health Science College maybe provides a unique opportunity to explore active learning practice in the health sciences. By doing so, we can illustrate the possible challenges to effective active learning, identify the 'baseline' use of active learning strategies, and illustrate possible contextual factors that enable or prevent good active learning.

Therefore in order to fill this research gap, the aim of this research is to assess the implementation of active learning practices and to examine associated factors with its implementation, in Wolita Sodo University Health Science College.

1.3. Research Questions

The study aims to answer the following basic questions:

1. What are the current practices of active learning methods in Wolita Sodo University Health Science College?
2. What are the main factors that affect the implementation of active learning?
3. How do instructors and students perceive active-learning?

1.4. Objectives of the study

1.4.1. General Objective

The general objective of this study is to assess the practice of active learning approaches in Wolita Sodo University, Health Science College.

1.4.2. Specific Objectives

- To identify whether variety of teaching approaches and techniques are used or not.
- To examine Perception of teachers towards active learning approaches.
- To identify main factors that affect the implementation of active learning approaches.

1.5. Significance of the study

This study aims to assess the practice of active learning approaches in Wolita Sodo University Health Science College, so the result of the study may have the following significances.

- It may show the level of utilization of active learning approaches in the health science college.
- It may contribute to improve the teaching methodology in Wolita Sodo University Health Science College by identifying factors that affect the effective use of active learning method
- It may help the teachers in health science faculties to evaluate their usual teaching method.
- It may initiate other medical education 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 scope of this study was delimited to the assessment of the implementation of active learning methods in a single undergraduate program of Wolita Sodo University Health Science College. As to its area coverage, due to shortage of time and resources, the study was confined to preclinical classes in undergraduate public health officer department. Besides, the study focused on the practices of implementation of active learning methodologies in the above mentioned department. Therefore, the study didn't explore the other aspects of activities of the college.

1.7. Operational definition

Active learning - refers to any form of active participation of students in class. It can be in question and answer, group work, discussions, debating, role playing etc in the class room (Prince, 200).

Implementation: is how teaching-learning activity put into practice by teachers/instructors in educational institutions.

2. Literature Review

2.1. Concepts of active learning

Multiple approaches to teaching and learning exist in the learning environments. Traditionally, teaching consisted mostly of lectures and the role of the students in this approach is to be a passive listener. Lectures have their own advantages but it mostly left students passive. In this teacher-centered approach the priority role and responsibility is given to the teacher. In this approach, the teacher is more active and acts as a director of learning and the learners listen passively and copy notes from the chalkboard (ICDR, 1999).

Recently, researches in the area of cognitive science, psychology, and neuroscience demonstrate that active teaching learning approaches are more effective than traditional approaches in the process of teaching learning (Joyce, Anna, Elizabeth and Shelly, 2011).

It is hard to get a single universally accepted definition to Active learning because different authors have interpreted it and its components differently. But commonly the term “active learning” is used to describe a teaching-learning approach which acknowledges that the learners are active in the learning process than simple listening to the lecture. In active learning students are stimulated to process, interact and share as part of their learning process (Prince 2004).

Active engagement of the students in the learning process is the main element of active learning. Introducing different student activities into the traditional lecture and promoting students engagement in this activities can be a simple example of active learning. In Student centered learning, student’s play an active role in the learning process and the teacher plays as an activator of learning. Terms, ‘student-centered’ or ‘learner-centered learning’, are the other terminologies which describes active learning (Prince 2004).

Active learning is based on a theory of learning called constructivism, which stresses the fact that learners build their own understanding. According to Constructivism learning is a process of making meaning. Theory of constructivism says that learning happens primarily through social interaction with others, such as a teacher or peers (Alemu, 2010).

Dee Fink, 1991 states that in order to create a complete set of learning activities capable of achieving significant learning , we need active learning which includes “getting information and ideas” , “experience” and “Reflection” (Fink, 1991).

As Dee Fink explains, experience can be experience of Observing/Doing. Experience of observing is when a learner watches or listens to the teacher or someone else doing something that is important to what they are learning about. The act of observing may be "direct" or "vicarious." A direct observation means the learner is observing the real action and a vicarious observation is observing a simulation of the real action. Doing refers to any learning activity where the learner actually does something. (Fink, 1991)

Regarding to reflection, Dee fink states that students can achieve significant learning by dialoguing with their self and others. Dialogue with self is when a learner thinks reflectively about a topic they are learning and dialogue with others are when a learner have discussion and communication with other learners. (Fink, 1991)

In an active classroom, the teacher is a facilitator in the process of the learning who will strive to create a learning environment in which students can learn to restructure the new information and to analyze and practice it. Integration of visual aids, demonstrations and other teaching techniques in to class presentations are also the role of teachers in active classroom (Bonwell & Eison, 1991).

Generally in active learning methodologies students are engaged in different activities and involved in high order thinking more than listening. Great emphasis is placed on developing students' skill s and exploration of their own attitudes and less emphasis is placed on transmitting information (Bonwell & Eison, 1991).

2.2. Benefits of Active Learning

Many Studies shows that active learning has many benefits for students and teachers. It helps students to increase information retention and application of knowledge by improving their critical thinking and problem solving skills. It also promotes motivation and teamwork which leads to enhanced understanding of course content. Additionally, active learning provides better confidence for students to use and improve their language proficiency. It also provides new learning resources and different learning styles which increases students engagement and course satisfaction (Yilma 2014).

Active learning allows for use of previous experience and knowledge to make connections with things which students are learning. It also encourages adoption of new perspectives by giving opportunities to open discussions and critical reflection of different perspectives on a particular topic (Alemu, 2010).

In medical and health science education, active learning improves clinical competencies and enhance interpersonal and communication skills of students. It also encourages self directed lifelong learning (Dent & Harden, 2013).

Active learning helps the lecturer select proper objectives at the correct level of difficulty to the need of students. It also creates time for the teacher to perform helping instructor functions of facilitating, listening and advocating (Alemu, 2010).

Many studies from different parts of the world supported that active learning is important to increase level of students learning. Austen & Wylie (2006) finds out there were good improvement in students learning and teaching learning process were improved following the practice of active learning.

Active learning is clearly beneficial and it is important to be considered because teaching is effective only when students are learning and learning is effective only when is meaningful to students. Learning is meaningful only when students can use it than memorizing facts (ICDR, 1999).

2.3. Common Techniques of Active Learning

Dee Fink, 2003 in his book, “A self directed guide to designing courses for significant learning” explains the difference between teaching techniques and instructional strategy as a Teaching technique is a discrete, specific teaching activity and instructional strategy is a set of learning activities.

There are many techniques which promote students to have active learning in classroom and outside classroom. Following are the most common and widely utilized teaching techniques which encourage students to have active involvement in classroom and understand the subject in a better way.

A. Group Work/Discussion Groups

One of the most common techniques used in classroom is group work. In group works everyone in the group has a chance to participate and everyone has a role to play to accomplish the given task together. If it is properly organized and managed, group work enables students to learn more and to remind their interdependence (Alemu, 2010).

Teshome (2014) finds out group work and discussion were the most commonly employed active learning techniques in Haramaya University next to lecture method.

B. Questioning

Questioning is another active learning technique which promote students to actively participate in the teaching and learning process. It is an easy technique in which questions are asked during lecture to hold student’s attention and assess their understanding (Sahar, 2014).

C. Think-Pair-Share

It is one of the effective active learning techniques which allow students to think the solutions to a given problem individually and subsequently share their outcomes with a partner and larger group. With this technique, students will be active by having dialogue with self and others about the given problem (Fink, 2003).

D. Demonstration

This active learning technique is when the instructor demonstrates how to do something in front of students and let the students do something in front of their friends and the teacher. It enhances retention by showing the students how to do something in both words and actions. It needs good planning and the necessary equipments should be ready (Edo, 2012).

E. Role play

Role playing is the other important teaching technique which is a powerful technique for motivating learners and developing or changing learners' attitude (Gezahegn, 2013). Role playing is unrehearsed dramatization of a certain situation in which players try to act what they would do and how they would react in that situation.

F. Brainstorming

Brainstorming is a technique used with a group to generate a large number of ideas quickly. It actively engages students in the learning process. Brainstorming is a valuable activity because it is unlikely that if students worked alone that they would come up with the same volume of ideas (Alemu, 2010).

It can be used to introduce a new topic, revise a topic or solve a problem.

G. Case Studies

A case study is a real or imaginary scenario which describes an event or situation which students are required to read, understand and solve problems/questions based on the case study. Students can work on the case study individually or in small groups.

Case studies can be used across all course areas and it gives students the opportunity to be realistic, creative and practical (Alemu, 2010).

H. Project Method

A project is a natural learning activity involving the investigation and solving of problems by individuals or a group of trainees. It should consist of a task in which a trainee sets out to achieve some definite goal of real personal value (ICDR, 1999).

I. Peer teaching

Peer teaching is an instructional technique which results in deep learning. It is a participatory and active strategy in which students teach each other. It involves use of students in the class who have experiences and good background in particular area.

Maany studies proved that peer teaching is extremely effective for improving learning in the class room (Eresso 2015).

2.4. Teachers and Students Conception and Practices in Active learning

Different teachers have different interpretations for teaching and learning. However, in the literatures there are agreed conceptual categories provided to describe how teachers interpret teaching. These are imparting information, transmitting structured knowledge, student teacher interaction, facilitating understanding and conceptual change.

The first two categories are examples of teacher centered orientation and the last two refers to student-centered orientations (Zerihun 2011).

Teachers' conception of teaching reflects in selecting methods of teaching. Teachers who have a teacher-centered orientation believe that students learn better when much content is presented so they are more likely to give lectures and encourage students to recall facts. On the other hand, those who have student-centered orientation employ various methods of active learning (Zerihun 2011).

Some teachers discourage active learning because they have the beliefs that active learning takes too much time and thus covering the portion is difficult (Eresso, 2015).

In health science education context, new graduates of health professional programs become teachers with only a little or no background and experience in teaching. These health science instructors come to the role of a teacher with their preexisting perceptions consists of false beliefs, misunderstandings and incomplete knowledge related to teaching and learning (Graffam, 2007).

Studies on teachers' perception of active learning methods are conducted in different Ethiopian universities. Most of the studies indicated that instructors have perceived active learning positively but their practice of active learning were low (Gara & Asrat, 2011; Teshome, 2012; Tedla & Sewasew, 2016).

Students' perception of learning also influences their approach to learning. Students who consider learning as increase in knowledge or memorization, always tries to memorize facts but those who conceive learning as abstraction of meaning or understanding concepts, they apply a deep approach while learning (Zerihun, 2011).

Students' lack of interest in active learning methodologies was reported by teachers in different studies conducted in Ethiopian Universities (Alemu 2010; Teshome, 2012).

2.5. Main challenges of active learning

There are many challenges which inhibit the implementation of active learning approaches. The challenges and their seriousness are different in different places and different time. In the issue paper "*Challenges to promoting active learning, student-centered pedagogies*", which was published by AIR in 2006, the most common challenges faced by the government, educators and international aid organizations against implementation of active learning were categorized in to 4

categories. These are: quantity/quality of teachers' pre service training; the material conditions in classroom; the learning demands of curriculum and examinations and the cultural issue.

There are many challenges surrounded the higher education system in Ethiopia. The result of many studies in Ethiopian universities showed common major issues which inhibit the implementation of active learning methodologies such as are instructors tendency towards the traditional/lecture method; lack of students interest; shortage of time; lack of instructional materials and large class size (Alemu, 2010; Teshome 2012)

Other obstacles which are found to be common challenge for the implementation of active learning include instructors' lack of skill on active learning methodologies and lack of administrative support (Tedla & Sewasew, 2016).

3. Methodology

3.1. Study Design

This is a convergent parallel design mixed methods study which intended to describe the phenomenon of active learning in classrooms. A convergent parallel mixed methods design was employed, and it is a type of design in which qualitative and quantitative data are collected in parallel, analyzed separately and then merged (Creswell, 2013).

In this study, survey was used to describe the current practice of active learning, to identify the main factors that affect implementation of active learning and to examine teachers and students perception of active learning because survey is cheap, can reach a large group of people and give us good measurement data on perceptions and practices.

The Interviews were used to gather the qualitative data because it gives us further, in-depth information on the perceptions and experiences of teachers and the academic director.

3.2. Study Area and Period

The study was conducted in Wolita Sodo University Health Science College which is located at Wolita Sodo Town, 315km to south east from Addis Ababa. WSU is one of the second generations of thirteen new Universities which were established in the year 2008 by the Ethiopian government. The college of health sciences is now hosting many students in Medicine, Public Health, Midwifery, Nursing, Anesthesia, Medical Laboratory Science and Pharmacy. The study was conducted from December 2017 to January 2018.

3.3. Study Population

The academic director, instructors from pre clerkship departments and undergraduate health science students of Wolita Sodo University Health Science College were the population of the study.

3.4. Sampling Method

Both Probability and Non probability sampling techniques were used.

Lottery method was used to select the department, from where the students were selected for the survey. Department of public health officers was selected by lottery. From the selected department, which is the public health officer department, using purposive sampling method, a second year public health officer students who already done pre clinical classes were selected to participate in the study. All 81 students from the second batch were sampled for the survey using availability sampling technique

The researcher believed that one department students who already done many preclinical classes provide sufficient information about the practice of active learning on survey questionnaire.

For the survey, all 21 instructors of the college who teach preclinical courses were selected using availability sampling technique because their number is small.

The researcher believed that clinical teachings have different nature and incorporating clinical classes as a sample with preclinical classes together was not convenient and feasible to meet the objectives of this study.

For the qualitative part of the study, purposive sampling was used to select six instructors from different departments and units for additional interviews. The academic director of Wolita Sodo University Health Science College was also the participant of the study. Different interview questions were used to interview the academic director.

3.5. Eligibility Criteria

3.5.1. Inclusion criteria

- Teachers who teaches preclinical courses.

3.5.2. Exclusion criteria

- Teachers who were not available for a week in the data collection time.
- New teachers who had not previous experience of at least 6 month of teaching.

3.6. Data Collection Instruments

The data were collected by interviews and anonymous questionnaires. From all students and teachers quantitative data were collected using self administered questionnaires which were prepared separately for the students and teachers. A number of questions that can address the objective of the study were gathered and adopted from previous similar studies (Gezahegn, 2013 and Mijena, 2015).

The questionnaires were prepared in English language and it had 2 sections. The first section was intended to gather background information of the instructors and student. The second section of the questionnaire was designed with 4 parts to gather the main data. The first part had items which help to examine instructors'/students' perception of active learning. The second and third parts were about the current instructors and students practice of active learning and the forth part was about the challenges in implementation of active learning.

Interviews were employed to acquire in-depth qualitative data and data that couldn't be handled by questionnaires. The academic director and selected teachers were interviewed by using a semi structured interview guide which was prepared separately for the academic director and teachers.

3.7. Data Collection Procedures

All the questionnaires were distributed to the instructor and student participants after a precise introduction so as to let them know the purpose of the study. The participants were encouraged to respond to all questions privately and put them in a sealed envelope before they returned them to the data collector.

After collecting the quantitative data, Interviews with selected teachers and the academic director were conducted based on their willingness after disclosing the purpose of the study. All interviews were recorded with tape recorder and transcribed by experienced transcriber and principal investigator.

3.8. Data Management and Quality Assurance

The data were collected by predesigned, valid tool and pretest was done. The pre test was taken place at WSU Health Science College in Medicine department, taking 3 instructors and 5 students.

The data collectors have taken proper training. Furthermore, the principal investigator checked the collected data carefully on daily bases for their completeness, accuracy and clarity.

3.9. Data Analysis

Data analysis was done in three phases. In the first phase the quantitative data were analyzed using a quantitative approach. The collected quantitative data were entered, cleaned, coded and recoded using Epidata version 3.1 software. The processed data were exported and analysis was done in SPSS Version 20. Frequencies, percentages and means were used during the data analysis.

In the second phase the qualitative data were analyzed considering the research question, using framework coding which is a deductive approach.

After analysis of the quantitative and qualitative data separately, results were merged and there were a common interpretation phase to look for answers to the research questions and to yield insights for the discussion and conclusion of this study.

3.10. Ethical Considerations

The study protocol was approved by the department of Health science education of Addis Ababa University and the academic director at Wolita Sodo University Health Science College received a written ethical clearance letter from Addis Ababa University College of health sciences and they expressed their willingness after they received the letter and informed about the whole purpose of the research project.

Verbal consent was obtained from each study subject. Participants were told the objective of the study and their right to refuse filling the questionnaires or participate in interviews any time they want. Participants were aware of that their answer would remain anonymous and confidential.

3.11. Dissemination of Results

The result of the study will be submitted to AAU College of medicine and health sciences, department of health sciences education. Additionally the findings of the research will be submitted to WSU College of health sciences and it will be presented on health science educators meetings and health professional association conferences. Priority will be given to the timely dissemination of the study findings to the relevant organizations and stakeholders. Publication will be attempted on journals.

4. Presentation, Analysis and Interpretation of Data

This chapter deals with the presentation, analysis and interpretation of the data collected through questionnaires and interviews. It consists of two parts. The first part is concerned with the description of the background personal characteristics of the respondents and the second part is concerned with the analysis of the main data.

4.1. Background of Respondents

The major categories of respondents involved in this study were students, instructors of preclinical classes and the academic director of the college. A total of 101 participants were included in this study. Of these, 81 were students, 19 were instructors and one was academic director of the college.

The questionnaires were administered to 81 students and 21 instructors. All 81 students and 19 instructors have returned the questionnaire and this represents 100% and 90.5% response rate respectively.

Table 1 - Background Information of Sample Instructors

Variables	Category	Frequency	Percent (%)
Department	Anatomy	2	10.5
	Physiology	4	21
	Biochemistry	4	21
	Pharmacy	5	26.3
	Microbiology	3	15.8
	Pathology	1	5.3
	Total	19	100
Sex	Male	17	89.5
	Female	2	10.5
	Total	19	100
Age	<=29	2	10.5
	30-39	14	73.7
	40-49	3	15.8
	>49	0	0
	Total	19	100
Educational level	BSC	1	5.3
	MSC	18	94.7
	PHD	19	100
Teaching experience	1-5 years	11	57.9
	6-10 years	8	42.1
	>10 years	0	0
	Total	19	100

The background information of instructors (n=19) who completed the questionnaire are summarized in the table 1 above. As shown in the table, 89.5% of the instructors who filled and returned the questioner were males and the rest were females. Concerning the educational background of instructors, 18 (94.7%) instructors are masters degree holder and the rest 1 (5.3%) is BSC holder.

All 81 student respondents were the second year public health officer students of Wolita Sodo University. Twenty six (32.1%) of the student respondents were females and the remaining 55(67.9%) were male.

The interviews were conducted with 6 instructors and one academic director of the college. One instructor from each department was interviewed including from the departments of Anatomy, Physiology, Biochemistry, Pharmacology, Microbiology and Pathology. All the instructors and the academic director were males and were qualified with second degree.

4.2. Analysis of the main data

This part deals with the analysis of the main data obtained from questionnaires and interviews. In line with the basic research questions formulated in the introduction part, major emphasis was given on the students and teachers perception of active learning, on extent of current practice of active learning and on identifying of main factors affecting the practice of active learning in the college of health sciences of Wolita Sodo University.

The quantitative data which were collected through the questionnaires were presented with the help of tables and the results of the interviews were analyzed qualitatively and presented in statement forms.

4.2.1. Perception of Students and Teachers about Active Learning Method in Preclinical Classes

To practice or hinder individual's activity, perception has a great role. Therefore, teacher's perception of active learning highly influences the implementation of active learning either positively or negatively. Additionally the perception of students also affects the implementation of active learning (Eresso, 2015).

For the analysis and interpretation of teachers and students perception of active learning method, a five point Likert scale which ranges from strongly agree to strongly disagree was used. Scoring was made by assigning values of 5,4,3,2 and 1 for the strongly agree, agree, neutral, disagree and strongly disagree respectively for statements written in a way that agreement meant favorable perception. For statements where disagreement meant favorable perception, scoring was done simply by assessing the above point in reverse order.

4.2.1.1. Perception of Teachers about Active Learning Method

Table 2 - Frequency, Percentage and Mean value of data collected on instructor's perception of active learning

No	Items	Number of respondents and percentage					Mean
		Strongly agree 5	Agree 4	Neutral 3	Disagree 2	Strongly disagree 1	
1	Active learning enables learners to understand the ways of solving problems.	14 (73.7%)	5 (26.3%)	-	-	-	4.74
2	Active learning creates a democratic relationship between the teachers and the students.	12 (63.2%)	6 (31.6%)	1 (5.3%)	-	-	4.58
3	Interaction and active participation of students is one of the most important for the effectiveness and quality of education.	11 (57.9%)	7 (36.8%)	1 (5.3%)	-	-	4.53
4	Active learning methods encourage students self directed learning and problem solving skills.	13 (68.4%)	6 (31.6%)	-	-	-	4.68
5	Active learning creates the opportunities to share experiences and encourage friendship among the students.	15 (78.9%)	4 (21.1%)	-	-	-	4.79
6	Active learning enhances self confidence and independent learning of students.	12 (63.2%)	3 (15.8%)	3 (15.8%)	1 (5.3%)	-	4.37
7	Students learn best when they actively involve and practice.	15 (78.9%)	3 (15.8%)	1 (5.3%)	-	-	4.74
8	Lectures are the most valuable teaching method.	3 (15.8%)	6 (31.6%)	6 (31.6%)	3 (15.8%)	1 (5.3%)	3.37
9	Group work discourages students basic sciences insight	-	-	3 (15.8%)	7 (36.8%)	9 (47.4%)	4.32
10	Students should engage as fine listeners during learning.	1 (5.3%)	1 (5.3%)	4 (21.1%)	4 (21.1%)	9 (47.4%)	4.05
11	Students should be encouraged to make decisions about the what, how and when of learning.	8 (42.1%)	9 (47.4%)	2 (10.5%)	-	-	4.32
12	Teaching at university level should be generally lecturer centered.	5 (26.3%)	-	-	5 (26.3%)	9 (47.4%)	3.68
13	The quality of education can be improved if teachers shift their instruction from lecture method to active learning approaches.	7 (36.8%)	7 (36.8%)	5 (26.3%)	-	-	4.11
14.	Students should be lectured to recall facts.	-	-	2 (10.5%)	7 (36.8%)	10 (52.6%)	4.42
	Grand Mean						4.34

To find out the perception of teacher, 14 items were presented to teachers their response was summarized in the table above.

As depicted in the above table 3, all of the statements appeared were positive statements about the assumptions of active learning except the statements appeared in item no 9, 10, 12 and 14.

All (100%) of the respondents have either agreed or strongly agreed to statements in item 1, 4 and 5 which say “Active learning enables learners to understand the ways of solving problems”, “Active learning methods encourage students self directed learning and problem solving skills” and “Active learning creates the opportunities to share experiences and encourage friendship among the students”. Additionally, high proportion of instructors (94.8%) showed their agreement or strong agreement to those items in no 2, 3 and 7 of table 2.

Statements in item no 6, 11 and 13 were also agreed or strongly agreed by 79%, 89.5% and 73.6% of the respondents. This indicated that majority of the instructors agreed with the assumptions “Active learning enhances self confidence and independent learning of students”, “Students should be encouraged to make decisions about the what, how and when of learning” and “The quality of education can be improved if teachers shift their instruction from lecture method to active learning approaches”.

Item 8, which say “Lectures are the most valuable teaching method”, was agreed and disagreed by 47.4% and 21.1% of the respondents. The rest 31.6% of the respondents remained neutral with this idea.

Item 9 states “Group work discourages students’ basic sciences insight”. For this item, 47.49% of instructor respondents showed their strong agreement whereas 36.8% and 15.8% of the expressed their agreement and their neutral idea with the statement respectively.

In item 12, the respondents were asked whether they believe teaching at university level should be teacher centered. Majority of the respondents (47.9%) replied that they strongly disagree with the idea and 26.3% of the respondents agree with the idea. The rest 26.3% of respondents strongly agree with the idea.

Item 10 and 14 also had negative statements about active learning as shown in the table. From the respondents, 47.4% and 52.6% of instructors showed their strong disagreement and 21.1% and 36.8% of respondents showed their disagreement for item 10 and item14 respectively.

The grand mean value of instructor respondents is 4.34. It is between 4 and 5 and lies between agree and strongly disagree. This implies majority of the instructors have perceived active learning positively.

4.2.1.2. Perceptions of Students about Active Learning Methodology

Eleven (11) items were presented to students to find out their perception of active learning and their responses are summarized in table 3 below.

Table 3 - Frequency, Percentage and Mean value of data collected on students' perception of active learning

No	Items	Number of respondents and percentage					Mean
		Strongly agree 5	Agree 4	Neutral 3	Disagree 2	Strongly disagree 1	
1	Active learning enables students understand what they are learning.	51 (63.0%)	22 (27.2%)	6 (7.4%)	-	2 (2.5%)	4.48
2	Active learning provides better confidence for students to use and improve their language proficiency.	36 (44.4)	28 (34.6%)	13 (16.0%)	2 (2.5%)	2 (2.5%)	4.16
3	Active learning involves a democratic relationship between the teacher and the student.	39 (48.1%)	31 (38.3%)	7 (8.6%)	1 (1.2%)	3 (3.7%)	4.26
4	Active learning is not an appropriate method to be practiced in the university.	7 (8.6%)	8 (9.9%)	9 (11.1%)	31 (38.3%)	26 (32.1%)	3.75
5	Active learning method creates problems to classroom management and is not advisable to use it.	8 (9.9%)	6 (7.4%)	8 (9.9%)	28 (34.6%)	31 (38.3%)	3.84
6	Active learning method creates a heavy load on the part of the student, and it is difficult to practice.	8 (9.9%)	10 (12.3%)	14 (17.3%)	24 (29.6%)	25 (30.9%)	3.59
7	Active learning methods consume much of teachers' time and results in difficulty to cover the content.	7 (8.6%)	12 (14.8%)	18 (22.2%)	26 (32.1%)	18 (22.2%)	3.44
8	Active learning methods related to the objectives of the lessons and the activities given are good to make the classroom teaching learning interesting.	31 (38.3%)	29 (35.8%)	8 (9.9%)	2 (2.5%)	11 (13.6%)	3.83
9	It seems that your teachers have good interest to let you work activities in the classroom than presenting the lesson themselves.	4 (4.9%)	32 (39.5%)	16 (19.8%)	18 (22.2%)	11 (13.6%)	3
10	Most of the students in your class feel happy when the teacher gives you some activities to be done and presented soon.	13 (16.0%)	25 (30.9%)	21 (25.9%)	21 (25.9%)	1 (1.2%)	3.34
11	You and your friends think that when you do activities by yourself you learn best than simply listening to your teacher.	21 (25.9%)	30 (37.0%)	14 (17.3%)	7 (8.6%)	9 (11.1%)	3.58
	Grand Mean						3.75

As indicated in the table, high proportion (90.2%, 79%, 86.4%, 74.1% and 62.9%) of the student respondents showed either agreement or strong agreement with the statements in item no 1, 2, 3, 8, and 11 of table 3, which have a positive statement about the assumption of active learning.

This shows that students were agreed with the concepts that active learning enables students' better understanding, provides confidence, improve language proficiency, creates democratic relationship and makes the classroom interesting.

On the other hand, majority of the student respondents showed their disagreement to the item 4, 5 and 6 of table 3. Item 4 which states, "Active learning is not an appropriate method to be practiced in the university", was strongly disagreed and disagreed by 32.1% and 38.3% of the respondents respectively.

Item 5 and item 6, that says "Active learning method creates problems to classroom management and is not advisable to use" and "Active learning method creates a heavy load on the part of the student, and it is difficult to practice." were also disagreed by 72.9% and 54.3% of the respondents.

The grand mean value of student respondents were 3.75. Like the instructor respondents, majority of the students had a positive perception of active learning.

The interview report also approved that majority of the teachers and students mostly had a positive perception of active learning, even if some of them had some misconceptions about it.

The data obtained through interview with selected instructors indicated that majority of instructors had a perception of active learning method as a best methodology which enhances students learning and facilitate the teaching learning process in a best way. My interviewee instructors mentioned that active learning methodology or student centered approach are a good strategy which enables students to acquire the required knowledge, to develop skills and necessary competencies than a teacher centered approach.

The interviews also showed that instructors think as it was very hard to practice active learning methodology in preclinical classes in the university because it was not the tradition in our schools. Some instructors were also indicated that active learning creates a heavy load on both instructors and students side. and is time and resource intensive and it needs special skills to practice, which leads them to think as it is very difficult to implement active learning methodologies in their classroom.

The interview with the academic director of the college also showed that most of the instructors have a positive perception of active learning but some don't have positive understanding on active learning methodologies. Additionally the academic director also indicated that different regular courses, trainings and seminars should be designed and organized to raise the awareness of preclinical instructors on active learning methodologies.

The academic director of the college expressed his judgment about the attitude of teachers and students towards active learning approach by saying:

Most of our teachers and students are familiar with the concept of active learning. They know that our education and training policy promoted to implement active learning methodology which is scientifically supported strategy to improve the quality of education. Despite their good understanding of active learning, majority of our teachers and students tend to use the traditional method because they didn't bring attitudinal changes yet. (AD, 2018).

In consistent with other previous research findings, for example (Teshome, 2012; Tedla and Sewasew, 2016), the study revealed that majority of instructors and students mostly have a positive perception towards active learning methodology. This shows that students and instructors could be a good implementer if they are committed to implement active learning methodology and if conducive environment is created in the college.

The main target here is that there is a strong relationship between teachers and students attitude and their effort to practice active learning. Therefore, to implement active learning, proper measures should be taken to bring full attitudinal change in students and instructors by filling the gap on their perception of how to practice active learning.

4.2.2. Practice of Active Learning Methodologies in Preclinical Classes

The main objective of this study was to assess the extent of practice of active learning by teachers and students. To meet this, teachers and students were asked about the current practice of their roles during active learning and the extent of their practice of different active learning techniques and their responses are discussed in this section separately.

4.2.2.1. Analysis of data obtained on the teachers and students role in the current practice of active learning methodology

To find out instructors and students current practice of active learning in preclinical classes, 7 items were presented to students and another different 7 items were presented to teachers and their responses are summarized in separate tables below.

Table 4 - Frequency, Percentage and Mean value of data collected from students on the current practice of active learning

	Items	Number of respondents and percentage										
		Strongly agree 5		Agree 4		Neutral 3		Disagree 2		Strongly disagree 1		Mean
		F	%	F	%	F	%	F	%	F	%	
1	It seems to you that your teachers have good knowledge of teaching students involving them in active learning methods.	19	23.5	33	40.7	7	8.6	17	21.0	5	6.2	3.54
2	Your teachers regularly motivate you to ask questions and to practice different activities in the class room	22	27.2	32	39.5	16	19.8	11	13.6	-	-	3.80
3	Your teachers encourage participation of students in different activities.	17	21	33	40.7	17	21.0	10	12.3	4	4.9	3.60
4	Students frequently discuss in pairs or groups in your classes	15	18.5	30	37	13	16.0	18	22.2	5	6.2	3.39
5	Your teacher arranges students for different classroom activities like discussion, debating, presentation, peer-teaching, group work etc?	14	17.3	29	35.8	17	21.0	16	19.8	5	6.2	3.38
6	Teachers come to the classroom having different teaching materials like Videos, PowerPoint presentations, Models etc to motivate their students to the subject.	15	18.5	29	35.8	10	12.3	11	13.6	16	19.8	3.19
7	In general we can say that currently active learning is in practice in your classroom.	13	16	36	44.4	15	18.5	7	8.6	10	12.3	3.43
	Grand mean											3.47

As it is presented in table 4, which summarize the result of data from students' questioner, the first item says "It seems to you that your teachers have good knowledge of teaching students involving them in active learning methods". About 23.5% and 40.7% of respondents showed their strong agreement and agreement to the item respectively. On the other hand, 6.2% and 21% of the respondents showed their strong disagreement and disagreement respectively. The rest 8.6% of the respondents were neutral to this item. This shows that majority of the students think that their teachers have good knowledge of teaching using active learning methods.

However, the data obtained through interview with the academic director shows that many teachers may had no enough knowledge and required skills to effectively exercise active learning methods in the class room because instructors had no adequate trainings on teaching methodologies.

The second item says "Your teachers regularly motivate students to ask questions and to practice different activities in the class room". Majority of the students supported this idea. About 27.2, 39.5% and 19.8% of the respondents showed their strong agreement, agreement and neutral to the idea respectively. Only 13.6% of the respondents disagree with the idea. Similarly, the third item, which says "Your teachers encourage participation of students in different activities", was also supported by the majority of the respondents. The mean value of item 2 and item 3 were 3.8 and 3.6 respectively. This implies that instructors are trying to actively involve students in the teaching-learning process.

Similarly the data obtained from the teachers' questioner also shows a similar finding. As indicated in table 5 below, Teachers were asked how frequently they encourage their students to ask questions and become actively participate in the class room. Majority of the instructor respondents were frequently encouraging students to ask questions and become actively participate in the classroom. About 42.1% and 47.4% of respondents replied "always" and "frequently respectively. Only 10.5% of the respondents replied rarely for the item.

Item 4, item 5 and item 6 of the students questioner asks whether students frequently discuss in groups, teachers arrange students for different activities and teachers come to class with different teaching materials. As the full figure is indicated in table 4, majority of the respondents answered their ideas in that they agree with the idea. The mean values of item 4, item 5 and item 6 were 3.39, 3.38 and 3.19 respectively. This shows that it is difficult to conclude that instructors come with different teaching materials and that instructors are arranging students for different activities and regularly exercising group/pair works in the class room. This issue was also supported by the data obtained from teacher's questioner and interviews that were made with selected teachers.

In the item 1 of the teachers' questioner, they were asked how frequently they arrange students for different classroom activities. The responses of instructors showed that, 21.1% of teachers were not arranging students for different activities at all and another 21.1% of the respondents

were rarely arranging students for different activities. The mean value of the item was 2.89, this supports that instructors are arranging their students for different activities sometimes.

Item 7 of the students table 4 which says “In general we can say that currently active learning is in practice in your classroom” was strongly agreed by 16% of the respondents and agreed by 44.4% of the respondents. About 18.5% of the respondents were neutral to the idea and the rest 12.3% and 3.43% of the respondents said that they disagree and strongly disagree with the idea.

The grand mean of students’ and instructors response was 3.4 and 3.64 respectively. This shows that teachers and students were trying to practice active learning methodology but the extent of their practice was not that much satisfactory.

Interviews with selected instructors revealed that instructors were trying to discharge their roles to exercise active learning methods only sometimes. They were regularly using traditional lecture method and not practicing different active learning strategies regularly for different reasons that will be discussed in the next section of this chapter.

Table 5 - Frequency, Percentage and Mean value of data collected from instructors on the current practice of active learning

	Items	Number of respondents and percentage										Mean
		Always 5		Frequentl y 4		Sometim e3		Rarely 2		Not at all 1		
		F	%	F	%	F	%	F	%	F	%	
1	Arranging students for different classroom activities	1	5.3	8	42.1	2	10.5	4	21.1	4	21.1	2.89
2	Encouraging students to ask questions and become actively participate in the classroom	8	42.1	9	47.4	-	-	2	10.5	-	-	4.21
3	Invite students to reflect their idea on the daily lesson and on the learning process itself	3	15.8	5	26.3	9	47.4	2	10.5	-	-	3.47
4	Give constructive feedbacks for students	4	21.1	9	47.4	5	26.3	1	5.3	-	-	3.84
5	Create activities that require higher order thinking and critical thinking skills	5	26.3	3	15.8	9	47.4	2	10.5	-	-	3.58
6	Associating the classroom lesson with the real life experience.	5	26.3	8	42.1	5	26.3	1	5.3	-	--	3.89
7	Using students as resources.	6	31.6	3	15.8	6	31.6	4	21.1	-	-	3.58
	Grand Mean											3.64

4.2.2.2. Analysis of data obtained on the current practice of specific active learning techniques

Teachers and students were also asked about the extent of their practice of different active learning techniques. Common instructional techniques were presented for respondents to indicate how frequently they employed each technique by saying always, frequently, sometimes, rarely and not at all.

Table 6 - Frequency, Percentage and Mean value of instructors' opinion on their practice of different active learning techniques in the classroom.

No	Teaching techniques	How often you employed these techniques										Mean
		Always 5		Frequently 4		Sometimes 3		Rarely 2		Not at all 1		
		F	%	F	%	F	%	F	%	F	%	
1	Lecture	13	68.4	6	31.6	-	-	-	-	-	-	4.68
2	Group works/Discussion	1	5.3	6	31.6	12	63.2	-	-	-	-	4.05
3	Question and Answer	4	21.1	7	36.8	7	36.8	1	5.3	-	-	3.74
4	Demonstration	3	15.8	5	26.3	5	26.3	6	31.6	-	-	3.26
5	Problem solving	-	-	2	10.5	12	63.2	3	15.8	2	10.5	2.73
6	Peer teaching	-	-	3	15.8	8	42.1	8	42.1	-	-	2.73
7	Brainstorming	-	-	1	5.3	14	73.7	1	5.3	3	15.8	2.68
8	Role playing	-	-	3	15.8	1	5.3	4	21.1	11	57.9	1.79
9	Individual assignments/ home works	3	15.8	10	52.6	5	26.3	1	5.3	-	-	3.79
10	Case study	3	15.8	6	31.6	1	5.3	5	26.3	4	21.1	2.94
11	Practice on real situations	1	5.3	1	5.3	2	10.5	4	21.1	11	57.9	1.79
	Grand mean											3.10

Instructors were asked to indicate how often they had been employing different active learning techniques in their teaching. From the analysis of instructors response (Table 6), Lecture was found to be the most commonly used learning strategy that had been always utilized by 13(68.4%)of the instructor respondents and frequently utilized by 6(31.6%) of the instructor respondents. The mean value of the responses (4.74) shows that, the lecture method was the most frequently employed method. Group work/discussion was also another frequently used teaching technique. The mean value of (4.05) similarly shows the method is frequently used.

Lecture and Group work method were widely employed because instructors and students were very familiar with those teaching techniques.

Next to Group work/discussion, Individual Assignments and Question and Answer and Demonstration had been frequently used with the mean value of the responses (3.79) and (3.74) respectively.

Demonstration, Case study, Problem solving, Peer teaching and Brainstorming has been employed by the instructors sometimes. The respective mean values of (3.26), (2.94), (2.73), (2.73) and (2.68) is very close to 3 , which shows that those teaching methods were sometimes utilized by the instructors in the college.

On the other hand role playing and practice on real situations were found to be the least utilized learning techniques. Both techniques has not been used at all by 57.9% of the instructor respondents and rarely used by 21.1% of the respondents. These analysis shows that ‘role playing’ and ‘practice on real situation’ methods were least employed with a similar mean value of. 1.79.

The grand mean of the instructor responses was 3.10, which shows that the instructors were utilizing different active learning techniques sometimes.

The data obtained from the interviews that were made with selected teachers also showed that lecture was the most commonly used teaching technique followed by group works/discussions, individual assignments and ‘question and answer’ teaching techniques. However, instructors also indicate that their lectures were mostly non interactive and traditional type.

The interviews additionally revealed that, demonstration, case study and peer teaching were the other commonly used techniques in the college. Other active learning techniques, including brainstorming, demonstration and practice in real settings have been mentioned by some instructors.

Table 7- Frequency, Percentage and Mean value of student’s opinion on the current practice of different active learning techniques in the classroom.

No	Teaching techniques	To what extent do your teachers use the following teaching methods in your classroom?										Mean
		Always 5		Frequently 4		Sometime 3		Rarely 2		Not at all 1		
		F	%	F	%	F	%	F	%	F	%	
1	Lecture	60	74.1	21	25.9	-	-	-	-	-	-	4.74
2	Group works/Discussion	19	23.5	19	23.5	33	40.7	10	12.3	-	-	3.58
3	Question and Answer	27	33.3	21	25.9	22	27.2	8	9.9	3	3.7	3.75
4	Demonstration	5	6.2	8	9.9	24	29.6	28	34.6	16	19.8	2.48
5	Problem solving	9	11.1	9	11.1	27	33.3	24	29.6	12	14.8	2.74
6	Peer teaching	6	7.4	9	11.1	34	42	21	25.9	11	13.6	2.73
7	Brainstorming	9	11.1	21	25.9	27	33.3	11	13.6	13	16	3.02
8	Role playing	11	13.6	25	30.9	21	25.9	11	13.6	13	16	3.12
9	Individual assignments/ HW	25	30.9	33	40.7	12	14.8	8	9.9	3	3.7	3.85
10	Case study	4	4.9	10	12.3	28	34.6	19	23.4	20	24.7	2.49
11	Practice on real situations	7	8.6	11	13.6	9	11.1	29	35.8	25	30.9	2.33
	Grand mean											3.17

As shown in table 7, The data obtained from student's questioner also witnessed that lecture was the most frequently used technique followed by individual assignments/home works, question and answer and group works/discussion.

Students also indicated that, instructors were employing problem solving, peer teaching, case study, brainstorming and role-playing sometimes.

In Similar with the teacher respondents, students also rated practice on real situations as the least employed teaching technique. The mean value of the item was 2.33.

The grand mean of the student's response is 3.17 which are almost equal with the grand mean of instructor's response (3.10). This indicates different active learning techniques including lecture method were employed in pre clinical classes sometimes.

Overall, both the quantitative and qualitative data which were collected from instructors, students and the academic director of the college indicated that lecture was the most employed teaching technique followed by individual assignments (homework), group work/discussions and question and answer.

Based on the analysis of quantitative and the qualitative data, we can say that there were practices of implementation of active learning methodology but traditional lecture method was the most dominant methodology in the college. Therefore, we can say that the level of implementation of active learning strategies in the college was low.

4.2.3. Factors Affecting the Practice of active learning methodologies

Regarding factors which affect the implementation of active learning, instructors and students were asked to identify the most serious, serious and non serious factors that affect the implementation of active learning. The responses of instructor and student responders are summarized in the following tables (table 8 and 9) separately.

Table 8 - Frequency, Percentage and Mean value of factors affecting the practice of active learning methods in teachers view

No.	Factors Affecting the Practice of Active Learning	Not serious (1)		Serious (2)		Most serious (3)		Mean
		F	%	F	%	F	%	
1.	Shortage of time	1	5.3	9	47.4	9	47.4	2.42
2.	Lack of instructional materials.	4	21.1	7	36.8	8	42.1	2.21
3.	Poor class room conditions	2	10.5	13	68.4	4	21.1	2.10
4.	Large number of students in the class	3	15.8	10	52.6	6	31.6	2.16
5.	Organization of Curriculum materials	3	15.8	8	42.1	8	42.1	2.26
6.	Lack of skill about active learning method.	8	42.1	8	42.1	3	15.8	1.74
7.	Lecturers' tendency to use traditional/ lecture methods.	7	36.8	11	57.9	1	5.3	1.68
8.	Students lack of interest on active learning methods.	8	42.1	10	52.6	1	5.3	1.63
9.	Some student dominance during group activities.	12	63.2	7	36.8	-	-	1.37
10.	The amount of content that needs to be covered during one class room	-	-	9	47.4	10	52.6	2.53
11.	Lack of Administrative support	7	36.8	7	36.8	5	26.3	1.89

According to instructors rating of the factors, the big amount of contents that needs to be covered during one class room and shortage of time to practice active learning were rated as the most serious factors that have been negatively affecting the utilization of active learning strategies.

About 52.6% and 47.4% of the respondents rated “The big amount of content that need to be covered during one class” as most serious and serious factor that hinders the implementation of active learning. “Shortage of time” was also rated by 47.4 % of respondents as serious and by another 47.4% of respondents as most serious factor. The mean values of the responses to the items, “The amount of content that needs to be covered during one class room” and “Shortage of time”, were 2.53 and 2.42 respectively, which shows that, those factors were the most serious problems that hindered the implementation of active learning in the college.

As it is shown the table 8, other factors which were rated as serious factors by majority of instructors are lack of instructional material, poor classroom condition, large class size, organization of curriculum materials, lecturers tendency to use traditional lecture method, lack of

skill about active learning methods, students lack of interest on active learning methods and lack of administrative support.

Some student dominance during group activities was rated as non serious factors by majority (63.2%) of the teachers. However, students rating of factors indicated that some students dominance during group activities were a serious factor which affects the implementation of active learning. As it is shown in table 9 below, 25.9% of student respondents thinks that some students dominance during group activities were the most serious factor and 59.3% of respondents indicated that it was a serious factor.

Other serious factors that were rated by instructor respondents are also supported by student respondents.

Table 9 - Frequency, Percentage and Mean value of factors affecting the practice of active learning methods in students view

No.	Factors Affecting the Practice of Active Learning	Not serious 1		Serious 2		Most serious 3		Mean
		F	%	F	%	F	%	
1.	Shortage of time	25	30.9	50	61.7	6	7.4	1.76
2.	Lack of instructional materials.	18	22.2	46	56.8	17	21	1.98
3.	Poor class room conditions	28	34.6	35	43.2	18	22.2	1.87
4.	Large number of students in the class	26	32.1	44	54.3	11	13.6	1.81
5.	Organization of Curriculum materials	31	38.3	31	38.3	19	23.5	1.85
6.	Lack of skill about active learning method.	38	46.9	27	33.3	16	19.8	1.73
7.	Lecturers' tendency to use traditional/ lecture methods.	46	56.8	19	23.5	16	19.8	1.63
8.	Students lack of interest on active learning methods.	22	27.2	48	59.3	11	13.6	1.86
9.	Some student dominance during group activities.	20	24.7	40	49.4	21	25.9	2.0
10.	The amount of content that needs to be covered during one class room	20	24.7	46	56.8	15	18.5	1.94
11.	Lack of Administrative support	23	28.4	34	42.0	24	29.6	2.01

Selected instructors and the academic director of the college were also asked about the factors that affects the implementation of active learning methodology in the college during the interview.

In the same way, the interviews with the selected instructors revealed the following problems as serious factors which hindered the implementation of active learning during their teaching.

- Shortage of time to cover bulky amount of contents by various methods
- Lack of skill to practice different teaching techniques due to lack of pre service trainings and inadequacy of in-service trainings on teaching methodologies
- Student lack of interest on active learning methodology

- Shortage of necessary resources
- Lack of enough administrative support
- Large number of students in classroom

The interview with the academic director additionally revealed that lecturers and students tendency to use the traditional/ lecture method and lack of commitment to implement active learning methodology were the most serious factors that hindered their practice of active learning. The interview report also indicated that many but not all instructors had taken HDP and other trainings on active learning methodology. However, some instructors may lack some skills to practice active learning strategies because trainings on teaching methodologies were inadequate.

Other factors that were rated as serious factors by students and instructors were also revealed during the interview with the academic director. Shortage of time, large amount of contents, organization of the curriculum and lack of continuous monitoring and administrative support were also the other serious factors that were raised by the academic director.

5. Summary, Conclusion and Recommendations

This chapter deals with summaries of the major findings, conclusion and recommendations, that have been made on the basis of the results in chapter four.

5.1. Summary

The main purpose of this study was to assess the practice of active learning approaches in Wolita Sodo University, Health Science College. In order to accomplish this objective of the study, the following three specific questions were formulated.

1. What are the current practices of active learning methods in Wolita Sodo University Health Science College?
2. What are the main factors that affect the implementation of active learning?
3. How do instructors and students perceive active-learning?

To answer these research questions, a convergent parallel mixed methods design were employed. Undergraduate health science students, instructors and the academic director of Wolita Sodo University health Science College were the target population of the study. Using a lottery method a student's of department of public health officer were selected and all 81 students from the 2nd batch of the department are selected using purposive and availability sampling. The academic director of the college and 19 instructors were also participated in the study. A total of 101 respondents were participated in the study.

Questionnaires and Interviews were the tools that were used to collect the data from the sample. Both quantitative and qualitative methods were used in analyzing the data obtained through questionnaires and interviews. The quantitative data were analyzed using frequencies, percentages and mean scores. On the other hand, the qualitative data were analyzed using framework coding and presented with descriptive statements. Finally, quantitative and qualitative results were merged to look answers for the main research question of the study and the following major findings were obtained.

A. Major findings on the current practice of active learning methods

In general, the analysis of data showed that there was some practice of active learning strategies during preclinical classes in the college.

- Based on the findings from the teachers and students survey, it is confirmed that there was a practice of different active learning techniques sometimes and that lecture method was the most frequently employed technique.

- On the other hand, the interview reports indicated that traditional lecture method, which is non interactive, was regularly employed method and the practice of different active learning techniques were not satisfactory.
- The study also revealed that individual assignment, group works/discussion and question and answer methods were the most frequently employed active learning techniques next to lecture method. Additionally, Demonstration, Case study, Problem solving, Peer teaching and Brainstorming have been used frequently.

B. Major findings on Factors affecting the implementation of active learning

The study revealed that various factors contributed to the low level of implementation of active learning methodologies during preclinical classes in the college. Shortage of time and a large amount of content that needs to be covered during one class room were the most factors that have been hindering the implementation of active learning strategies.

Lecturers and students tendency to use traditional lecture method was also another very serious factor that has been affecting the implementation of active learning negatively.

Other factors which have been seriously affecting the implementation of active learning strategies are listed in below.

- Lack of skill about active learning method
- Some students dominance during group activities
- Lack of continuous administrative support
- Organization of curriculum materials

C. Major findings on instructors and students perception of active learning

The data from analysis of instructors and students questioner showed that high proportion of instructors and students showed their agreement with the majority of assumptions of active learning that was raised in the questionnaires.

Generally, it was found that majority of the instructors and students have a good understanding of active learning.

5.2. Conclusions

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

- Even though there are few practices of some active learning methodologies, the practice of active learning strategies during preclinical classes in the college was found not satisfactory because almost all teachers and students confirmed that lecture method was the most frequently employed technique and the interview reports revealed that traditional lecture method, which is non interactive, was regularly employed method and the practice of different active learning techniques were not satisfactory.
- Considering the level of utilization of different active learning techniques, individual assignments, group work/discussion and question and answer methods were found to be the most commonly employed techniques next to the lecture method.
- Regarding to the factors that affects the implementation of active learning methodologies, shortage of time, the large amount of contents to be covered during one class room and lecturers and students tendency towards traditional lecture method and lack of commitment to implement active learning, were the most serious factors. Additionally, lack of skill about active learning method, some student dominance during group activities, lack of continuous administrative support and organization of curriculum materials were also serious factors that hinders the implementation of active learning methodology.
- With regard to instructors and students perception of active learning, the findings showed that almost all the instructors and students have perceived active learning positively but they don't practice it.

5.3. Recommendations

Based on the conclusions drawn, the following recommendations were forwarded to improve the implementation of active learning.

- As the findings revealed, majority of the instructors have a positive perception of active learning but their practice of active learning methodology was not satisfactory. Thus, it is recommended that instructors should be committed to discharge their roles to exercise active learning methodologies.
- The level of utilization of active learning can be improved if the instructors are able to provide the situations that encourage active participation of students in the teaching learning process regularly. Additionally, the administration of the college should design and implement a mechanism to monitor the practice of active learning regularly.
- The result of this study identified that shortage of time and large amount of content to be covered during one class room were the most serious factors which hindered the practice of active learning. So, the concerned bodies of the college should design different mechanisms to improve these problems by appropriately allocating the time, revising crowded materials and avoiding bulky and unnecessary contents.
- Lecturers and students tendency towards traditional lecture method was also another serious problem in the college. To improve this problem, the college should prepare different trainings, seminars and courses to bring attitudinal change in instructors and students of the college. Furthermore, FDRE Ministry of education should strengthen the implementation of active learning in the lower levels of the educational system, so that attitude of instructors' and students' and their traditional expectation will be changed.

Generally, to improve all factors that were contributing to the low practice of implementation of active learning methodologies, the administration of the college should continuously identify and solve those problems by developing a working group in coordination with teachers, students and other stakeholders.

6. References

- Adugna Eresso Mijena. (2015). *The practice of active learning method in English language classroom in some selected secondary school of Jardega Jarte Woreda*.
- Aggrawal J.C. (2006). *Principles, Methods and Techniques of Teaching*, New Delhi: SN printers.
- American Institute for Research. (2006). *Challenges to promoting Active Learning, Student-Centered Pedagogies*
- Aschalew Teshome. (2012). *Teacher's perception and practice of active learning in Haramaya University, Eastern Ethiopia: The case of faculty of education*. Star Journal, 1(4), 74-83(2012).
- Auster E.R, and Wylie k.k. (2006). *Creating active learning in the classroom: A systematic approach*. Journal of Management Education, 30(2), 333-353.
- Birhanu Moges Alemu. (2010). *Active Learning Approaches in Mathematics Education at Universities in Oromiya, Ethiopia*.
- Bonwell, C.C; Eison, J. (1991). *Active learning: Creating excitement in the classroom*, AEHE-ERIC higher education report no.1. Washington, D.C.
- Daniel Yilma. (2014). *The implementation of active learning and continuous assessment in Pentecostal theological college*.
- Fink, L. D. (2003). *A self directed guide to designing courses for significant learning*. San Francisco, CA: Jassay-Bass.
- Gara L and Asrat D. (2011). *Attitude of teachers towards the use of active learning methods*.
- Graffam B.(2007). *Active learning in medical education: Strategies for beginning implementation*. Medical Teacher, 29, 38-42.
- ICDR. (1999). *Teacher education hand book*. Addis Ababa: Finfine Printing and Publishing.
- Implementing the Curriculum with Cambridge: A Guide for School*
Leader www.cie.org.uk/images/134557-implementing-the-curriculum-with-cambridge.pdf
- John A.Dent. and Ronald M. Harden, Brian.D Hodges(eds) (2013) . *A Practical Guide for Medical Teachers*. 4th ed. Iran: Medical Cd Centre Co.Ltd.
- John W. Creswell. (2013). *Steps in Conducting a Scholarly Mixed Methods Study*. DBER Speaker series. 48.

Joyce P. Murray, Anna Frances Z.Wenger, Elizabeth A. Downes and Shelly B. Terrazas.(2011). *Educating Health Professionals in Low-Resource Countries: A Global Approach*. New York , Springer Publishing Company.

Ministry of Education (MoE). (2002). *The education and training policy and its implementation*. Addis Ababa: MoE.

Ministry of Education (MoE). (2004). Higher Diploma Program (HDP). Addis Ababa: MoE.

Prince M. (2004). *Does Active Learning Work? A review of the research*. Journal of Engineering Education, 93(3), 223-231(2004).

Sahar,H. (2014). *Active Learning in Kabul Schools: Afghan Teachers' Views and Practices*

Tadesse Abera Tedla and Saniel Tsehay Sewasew.(2016). *An assessment of the practice and its determinant factor of active learning methodologies by teachers of teacher education colleges of Begemidir and Gondar: North and South Gondar zones of Ethiopia*. British Journal of Education, 4(1), 32-50(2016).

Taye Alemayehu Gezahegn. (2013). *An Assessment of the Practice of the Implementation of Active Learning in Combined Arms Academy*.

Woldeamanuel.M, Atagana.H, Engida.T. (2013). *Ethiopian university science and technology instructors' attitudes toward active learning*. Academic Journals 4(3), 47-56.

Zenawi Zerihun, Jos Beishuizen & Willem Van Os. (2011). *Conceptions and practices in teaching and learning: implications for the evaluation of teaching quality*, Quality in Higher Education, 17:2, 151-161, DOI: 10.1080/13538322.2011.582793

Part 2 - Main Data

I. Instruction: items related with instructors' perception of active learning are listed below. Please tick () to reflect your opinion.(use the following scales)

1= Strongly agree 2= Agree 3=Neutral 4= Disagree 5=Strongly disagree

No	Items	Opinion of teachers				
		1	2	3	4	5
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	Interaction and active participation of students is one of the most important for the effectiveness and quality of education.					
4	Active learning methods encourage students self directed learning and problem solving skills.					
5	Active learning creates the opportunities to share experiences and encourage friendship among the students.					
6	Active learning enhances self confidence and independent learning of students.					
7	Students learn best when they actively involve and practice.					
8	Lectures are the most valuable teaching method.					
9	Group work discourages students basic sciences insight					
10	Students should engage as fine listeners during learning.					
11	Students should be encouraged to make decisions about the what, how and when of learning.					
12	Teaching at university level should be generally lecturer centered.					
13	The quality of education can be improved if teachers shift their instruction from lecture method to active learning approaches.					
14.	Students should be lectured to recall facts.					

II. Instruction: items related with different instructional techniques are listed in the table below. Please, select the correct answer by putting a tick () in a box that represents how often you have been employed these techniques in your teaching. (use the following scales)

1= Always 2= Frequently 3= Sometimes 4= Rarely 5= Not at all

No	Teaching techniques	How often you employed these techniques				
		1	2	3	4	5
1	Lecture					
2	Group works					
3	Question and Answer					
4	Demonstration					
5	Problem solving					
6	Peer teaching					
7	Brainstorming					
8	Role playing					
9	Individual assignments/ home works					
10	Case study					
11	Practice on real situations					

III. Instruction: Items listed below are related with the roles of teachers during active learning in class room. How often you employ these activities? (use the following scales)

1= Always 2= Frequently 3= Sometimes 4= Rarely 5= Not at all

No	Teaching practices	How often you employ				
		1	2	3	4	5
1	Arranging students for different classroom activities					
2	Encouraging students to ask questions and become actively participate in the classroom					
3	Invite students to reflect their idea on the daily lesson and on the learning process itself					
4	Give constructive feedbacks for students					
5	Create activities that require higher order thinking and critical thinking skills					
6	Associating the classroom lesson with the real life experience.					
7	Using students as resources.					

- IV. Instruction: Items listed below are the common factors which affect the practice of active learning method. Which factors affect the practice of active learning in your classroom? Please rate them from the most serious to not serious problems and use a tick mark () to indicate your response.

No.	Factors Affecting the Practice of Active Learning	Not serious	Serious	Most serious
1.	Shortage of time			
2.	Lack of instructional materials.			
3.	Poor class room conditions			
4.	Large number of students in the class			
4.	Organization of Curriculum materials			
5.	Lack of skill about active learning method.			
6.	Lecturers' tendency to use traditional/ lecture methods.			
7.	Students lack of interest on active learning methods.			
8.	Some student dominance during group activities.			
9.	The amount of content that needs to be covered during one class room			
10.	Lack of Administrative support			

Appendix - 2

Addis Ababa University

College of Medicine and Health Sciences

Department of Health Science Education

Questionnaire to be filled by students

The main purpose of these questionnaires is to gather some valuable information regarding the practice of active learning in your classrooms.

This is a part of my MSC research project. You are kindly requested to respond to every item in the questionnaire. Your responses are highly valuable to provide information on my thesis and will not be used for any purpose other than this

General Directions

- Don't write your name anywhere on this paper.
- Respond to all questions.
- Follow the directions given in each part.

Thank you in advance.

Part 1 - Background Information

1. Sex

Male

Female

Part 2 - Main Data

Instruction: Indicate your degree of agreement to each of the following statement using tick mark (). (Use the following scales)

1= Strongly agree 2= Agree 3=Neutral 4= Disagree 5=Strongly disagree

N O	Items	Alternatives				
		1	2	3	4	5
I.	Perceptions of students on the current practice of active learning methods					
1	Active learning enables students understand what they are learning.					
2	Active learning provides better confidence for students to use and improve their language proficiency.					
3	Active learning involves a democratic relationship between the teacher and the student.					
4	Active learning is not an appropriate method to be practiced in the university.					
5	Active learning method creates problems to classroom management and is not advisable to use it.					
6	Active learning method creates a heavy load on the part of the student, and it is difficult to practice.					
7	Active learning methods consume much of teachers' time and results in difficulty to cover the content.					
8	Active learning methods related to the objectives of the lessons and the activities given are good to make the classroom teaching learning interesting.					
9	It seems that your teachers have good interest to let you work activities in the classroom than presenting the lesson themselves.					
10	Most of the students in your class feel happy when the teacher gives you some activities to be done and presented soon.					
11	You and your friends think that when you do activities by yourself you learn best than simply listening to your teacher.					
12	In general we can say that currently active learning is in practice in your classroom.					
II.	Teachers' and students practice in using active learning method.					
1.	It seems to you that your teachers have good knowledge of teaching students involving them in active learning methods.					
2.	Your teachers regularly motivate you to ask questions and to practice different activities in the class room					
3.	Your teachers encourage participation of students in different activities.					
4.	Students frequently discuss in pairs or groups in your classes					
5.	Your teacher arranges students for different classroom activities like discussion, debating, presentation, peer-teaching, group work etc?					
6.	Teachers come to the classroom having different teaching materials like Videos, PowerPoint presentations, Models etc to motivate their students to the subject.					

III. Instruction: Items related with different instructional techniques are listed in the table below. Please, select the correct answer by putting a tick () in a box that represents how often your teachers have been employed these techniques. (use the following scales)

1= Always 2= Frequently 3= Sometimes 4= Rarely 5= Not at all

	To what extent do your teachers use the following teaching methods in your classroom?	1	2	3	4	5
A	Lecture					
B	Group works					
C	Question and Answer					
D	Demonstration					
E	Problem solving					
F	Peer teaching					
G	Brainstorming					
H	Role playing					
I	Individual assignments/ home works					
J	Case study					
K	Practice on real situations					

IV. Instruction: To what extent do the following factors affect the practice of active learning method in your classroom? Please, rate (order) them from the most serious to not serious problem based on the seriousness of the problem and use a tick mark () to indicate your response.

No.	Factors Affecting the Practice of Active Learning	Not serious	Serious	Most serious
1.	Shortage of time			
2.	Lack of instructional materials.			
3.	Poor class room conditions			
4.	Large number of students in the class			
4.	Organization of Curriculum materials			
5.	Lack of skill about active learning method.			
6.	Lecturers' tendency to use traditional/ lecture methods.			
7.	Students lack of interest on active learning methods.			
8.	Some student dominance during group activities.			
9.	The amount of content that needs to be covered during one class room			
10.	Lack of Administrative support			

Appendix - 3

Addis Ababa University

College of Medicine and Health Sciences

Department of Health Science Education

The main purpose of this interview is to assess the view of teachers on the practice of teaching learning process from the active learning prospective.

This is part of my MSC research project on health science education. Your responses will not be used for any purposes other than this research. Hence your honest responses, whatever it is, are solicited.

Thank you

Interview Guide to selected Lecturers

Direction: I would like you to briefly provide me your own opinions on the following questions based on your experience in the teaching learning process.

1. What are your personal views on active learning or student-centre approaches in teaching?
2. Are you regularly use active learning methods of teaching in your classrooms? If not, why?
3. What teaching techniques do you use to make the teaching learning process active?
4. What do your students feel when you give them activities to practice in the class room and Reflect?
5. Describe the training you received and its value for you on active learning approaches in your teaching?
6. Do you think that teachers, students and principals have positive outlook for effective practice of active learning in their class room or school? If your answer is no, what do you think is the reason?
7. Are there some benefits for your students since you taught them through active learning methods? If your answer is yes, what do you think are the major benefits?
8. What do you think are some of the most common factors that can affect effective practice of active learning in your teaching learning process?
9. What is your general comment for deans, department heads, teachers and students for effective practices of active learning method in teaching?
10. Is there anything you would like to add?

Appendix - 4

Addis Ababa University

College of Medicine and Health Sciences

Department of Health Science Education

Interview Guide to the Dean of the college

1. What do you think of the implementation of active learning at your college?
2. Do you think instructors have an adequate training and good understanding of active learning?
3. How do you judge the attitude of teachers and students towards the active learning approach?
4. What do you think the promoting and hindering factors of active learning?
5. What possible strategies you propose to develop more positive attitude towards active learning?
6. Is there anything you would like to add?