

The utilization of active learning techniques in Ethiopian primary schools: Practice and challenges

Merga Hunde¹ & Melka Hika^{*2}

¹ Department of Teacher Education, Jimma University, P. O. Box.378, Jimma, Ethiopia

²Department of Teacher Education, Wollega University, P. O. Box.395, Nekemte, Ethiopia

Abstract

This research aimed to assess the implementation and challenges of active learning strategies in government primary schools in the East Wollega zone of the Oromia regional state. Data was collected from 146 teachers in ten elementary schools, selected through accessible sampling tools. The research area was better connected to and experienced by ten principals, five vice principals, ten pedagogical head centers, and five cluster supervisors, who were selected through purposeful sampling. The study used questionnaires, observations, and interviews to gather data on active learning implementation. Quantitative data was analyzed using SPSS version 20 software, while qualitative data was collected through open-ended questions. The findings showed that instructors were generally supportive of active learning, but they did not actively participate in many activities due to traditional lecture styles, large class sizes, and a lack of instructional materials. The study suggests that active learning practitioners should consider alternative methods like smaller group sizes or field trips, even if maintaining an appropriate class size isn't feasible. The Oromia education bureau, district and Zonal education offices, and school management should develop innovative solutions to tackle these issues.

Article Information

Article History:

Received : 02-10-2023

Revised : 30-11-2023

Accepted : 27-12-2023

Keywords:

Active learning methods, Constructivism, Learner-centered approach, lecture practices, Woreda.

*Corresponding Author:

Melka Hika

E-mail:

degumh@gmail.com

Copyright©2023 STAR Journal, Wollega University. All Rights Reserved.

INTRODUCTION

Education as a means of acquiring life-essential knowledge, skills, and values is a universal endeavor and a fundamental human right. Thus, one of the main objectives of education is to increase people's aptitude and capacity for problem-solving. A learning theory and instructional model known as "active learning" has started to take shape. It centres on students actively participating in their education by immersing themselves in an

experience they find interesting and that supports their tasks and learning objectives. Active learning has become a popular pedagogical approach in the past 20 years, emphasising the relative significance of different teaching strategies and the environment in which learning occurs (Shroff et al., 2021).

According to the Ethiopian Education and Training Statement, the previous curriculum design and instructional style used an outdated and traditional approach. The official

Merga H. & Melka H.

curriculum prioritised academic knowledge and instructional strategies that encouraged students to memorise and merely recall facts. It was taught through instructor explanations or the chalk-and-talk lecture approach. This means that while students were just listening, professors were in charge of the classes.

Ethiopian education and training policies provide considerable thought to improving people's and society's ability to solve challenges. Constructivist approaches include the use of cooperative and collaborative learning strategies, critical and reflective thinking, and electronic portfolios for evaluation (Sadik, 2008). The effectiveness of classroom instruction greatly influences students' learning.

As a result, it's critical to give updating out-of-date teaching practices serious thought and to work hard to put new ideas into practice that help students learn how to solve problems. By involving students in the learning process, teachers can engage their pupils through the use of active learning. Exam success is not the aim of education in an active learning environment. Rather, its objective is to facilitate the personal growth of students, inspire a love of learning, and motivate them to pursue education for the rest of their lives.

In an active learning approach, the student comes first and active learning takes precedence over active teaching. Using the materials at hand, the learner is actively producing his or her own knowledge. As a result, the instructor supports student learning in the classroom by utilising a range of instructional resources. A variety of techniques and pedagogies must be used in order to effectively meet the needs of the new

Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114
generation, creative practices, and the dynamic educational environment. Furthermore, the results make it abundantly clear that implementing active learning practices in the classroom improves learning overall.

A technique that places a high priority on active learning and a strategy that offers opportunities for student engagement and participation are essential for promoting relevant and successful learning.

Silberman (1996) The significance of active learning is emphasised by the following quotations: "What I hear, I forget; what I hear and see, I remember a little; what I hear, see, discuss, and do, I understand; and what I teach to another, I master."

As a result, new, student-centered approaches that emphasise making connections with our surroundings and actively acquiring and applying knowledge are replacing teacher-centered instruction, memorization, and rote learning in educational institutions all over the world. Vavrus and colleagues, 2011).

This shift is required since simply memorizing facts does not promote effective learning or equip pupils to understand or successfully navigate their environment.

In a similar vein, Kuh (2003) argues that children merely sit in class, listen to their teachers, memorize given readings, and recite responses without really learning anything. It is expected of students to talk about what they learn, write eloquently about it, apply it to their daily lives, and make connections to what they already know.

What they learn needs to be assimilated with their identity. Stated differently, there is a consensus that the value of active learning in

Merga H. & Melka H.

the process of teaching and learning cannot be emphasised. Teaching and learning are grounded on real-world scenarios. But active learning procedures aren't always the sole effective approaches.

Firdissa (2005) asserts that while there isn't a single "right" way to teach a certain subject, there are a few aspects of teaching that can help a teacher choose the best alternative from the variety of current teaching techniques. It requires several exposures to the topic rather than just repeating inputs so that pupils can process and understand it.

Statement of the Problem

A number of instructional tactics need to be implemented in the classroom because of their profound impact on students' learning and engagement. Several studies assessing students' achievement have demonstrated that active learning and student engagement strategies are superior to lectures in fostering the development of students' thinking and writing skills, but comparable to lectures in promoting content mastery (Zewdu, 2017).

According to Ababa (1994), the paradigm should shift from being teacher-centered to student-centered. A student-centered approach effectively involves students in the process of teaching and learning, which fosters the development of their critical thinking skills. Therefore, in order to motivate students to actively learn, teachers are expected to implement active learning strategies at all educational levels (Asok et al., 2016).

According to this, Peter et al. (2010) discovered that students experience an increase in personal values like flexibility, self-confidence, social skills, and problem-

Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114

solving ability in addition to achieving high academic results when they are given the freedom to explore topics based on their own interests and are assisted by an understanding facilitator as they look for solutions. To do this, primary school teachers are urged to use active learning strategies. However, studies and firsthand knowledge have demonstrated that in the Ethiopian environment, theory and practice differ. This is intended to suggest that there are a number of reasons why the policy's declared ideals might not be adhered to in practice. Many research on this topic have been conducted around the country in a variety of educational settings.

Furthermore, Mulatu and Bezabih's (2018) research found that upper primary schools did not frequently employ active learning. Because of this, the majority of research findings have continuously demonstrated that teacher-centered approaches—more especially, the conventional lecture, question, and response formats—predominate in educational institutions.

Many academics think that the primary cause of active learning's failure in real-world classroom environments is the way it is used. For example, Teshome (2012) contended that effective implementation of active learning may be hampered by a few issues.

According to the previously indicated experience, the researcher observed a number of problems with the use of active learning strategies over her many years of employment in that field as a vice principal and teacher. Apart from this, no pertinent research that were finished in elementary schools in the Oromia regional state's East Wollega zone are currently being reviewed.

Merga H. & Melka H.

Furthermore, it seems that not much research has been done on the application of active learning in East Wollega Zone elementary schools. This, then, is what spurred the researcher to begin looking into this matter. Given this, the aim of this study was to evaluate the opportunities and major obstacles that arose throughout the active learning process in the elementary classrooms in the Oromia regional state's East Wollega zone.

Research Questions

1. *How much do elementary schools in the Oromia regional state's East Wollega Zone use an active learning approach?*
2. *Does the way active learning is implemented alter depending on a person's gender?*
3. *How do instructors feel about the wards in East Wollega Zone elementary schools in Oromia regional state?*
4. *What are the obstacles to implementing an active learning strategy in a few chosen elementary schools in the Oromia regional state's East Wollega Zone?*

MATERIALS AND METHODS

Research Design

The researcher employed a descriptive survey approach in order to gauge the active learning strategy's degree of implementation. Siedlecki (2020) states that the purpose of descriptive research is to characterise individuals, events, and circumstances by seeing them in their natural environments. Patall et al. (2008) state that "surveys are concerned with conditions or relationships that exist, opinions that are held,

Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114 processes that are going on, effects that are evident, or trends that are developing."

In particular, Kuboja (2019) notes that survey research can yield useful descriptions of the real state of events in a situation and has often been used as the foundation for effecting changes when the described state of affairs is deemed unacceptable. According to Creswell et al., one benefit of a descriptive survey is that it can be used to gauge current conditions, attitudes, or practices (2006). Views, attitudes, and beliefs represent how individuals think about topics, whereas practices reflect people's actual acts. Since the goal of the study is to provide an accurate image of the current condition, the descriptive survey methodology was chosen as the best alternative. Research in education especially favors the descriptive survey approach.

Research Method

This study employed both qualitative and quantitative research methods since it is believed that doing so will increase the reliability and validity of research findings.

In the words of Johnson et al. (2007), "mixed research is a synthesis that includes ideas from qualitative and quantitative research." Since every research method has unique benefits and drawbacks, Silverman (2006) asserts that "no research method stands on its own". Therefore, the goal of integrating research approaches is to partially compensate for their weaknesses.

While certain research methodologies are more frequently employed than others, there is no one "correct" way to conduct social science research, according to Antwi and Hamza (2015).

Merga H. & Melka H.

Furthermore, because quantitative research places a strong emphasis on variable analysis, it is unable to fully disclose the essence of individuals. Furthermore, unlike quantitative research, which is predicated on the premise that reality is subjective, complex, and socially constructed, qualitative research is guided by the interpretivist or constructivist theory. Therefore, it is advisable to use a hybrid method when doing this research.

Source of data

Primary sources provided the relevant information needed for the study in order to bolster its findings. Primary data sources were employed to collect precise information for the investigation of the application of active learning methodologies, practices, and obstacles in this study.

The principals, vice principals, educators, pedagogical head centres, and cluster supervisors of the East Wollega Zone's governmental primary schools functioned as the key sources of information. Observations from classrooms were also included in the source data. Initially, primary data was gathered and created in distinct formats. Principals, vice principals, head teachers, and cluster supervisors of the schools were requested to provide qualitative data, while teachers were asked to offer quantitative data.

The samples and sampling techniques

Ten primary schools, or five from each of the seventeen (17) woredas in the East Wollega Zone, were included in the simple random sample approach. Two of the woredas were chosen at random. because the investigator can gain deep understanding of the phenomenon of interest. Because of the wide coverage of the population, there is also less

Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114

likelihood of missing important insights from people who are not included.

After selecting the sample schools, principals, vice principals, cluster supervisors, and pedagogical head centres were included using purposeful sampling. Due to The focal point of each job is the principle, vice principal, supervisor, and pedagogical head centre.

Teachers from each chosen school would be chosen for the selected school using a census sample technique. In order to calculate the sample size, Mugenda and Mugenda (2003) state that descriptive research only has to include 10% of the population. According to Gay (2005), a representative sample of 20% of the population is considered sufficient for a descriptive survey design. However, the census sampling technique would select 146 teachers (146) in order to provide a more representative sample and trustworthy data.

Tools for gathering data

To guarantee accurate and sufficient information, it is imperative to select the appropriate data gathering tool. The data for the study was gathered using three different methods: questionnaires, observation checklists, and interviews.

Data Analysis and Presentation

After data collection, questionnaire responses are categorised and analysed in the statistical programme. Coding was developed to simplify data so that it could be more easily interpreted. Consequently, in-depth descriptions of the codes and the coding procedures would be prepared in advance. The data were examined using thematic analysis.

Merga H. & Melka H.

It was required to record oral interviews, code transcripts, and pinpoint reoccurring issues in order to analyse the data. Thorough documentation of notes and observations would be taken into account to minimise the imprecision of qualitative data. After being carefully separated into items and summed, the data collected via questionnaires was tabulated for analysis. Based on the tables, further information from the interview, and observations made in the classroom, the data was examined and interpreted. The data would be analysed both quantitatively and qualitatively.

In a quantitative case, inferential statistics like SPSS version 20 software with an independent T-test were used, and descriptive statistical tools like frequency, percentage, means, standard deviation, and a series of tables would be shown to the items alternative responses in order to communicate ideas to the reader in a way that the reader can understand. In contrast, qualitative data were methodically coded, categorised, and identified in order to bolster the quantitative data. As a result, narrative statements were used to analyse qualitative data using visual aids.

Instrument validity and dependability

Neuendorf (2010) poses the question, "Are we really measuring what we want to measure?" in reference to validity. This implies that the concept of validity is primarily related to the degree of trustworthiness of the data a researcher produces. A researcher must take into account a number of aspects when conducting research in order to ensure the veracity of the knowledge they produce.

Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114

The degree to which different users' repeated measurements of a tool or piece of equipment yield results that are comparable is known as reliability. A research pilot test would be conducted to evaluate the instruments' internal consistency (reliability) and content validity before the final distribution of the questionnaires.

Based on the findings of the pilot test that was given to the primary schools in the Nekemte Town Administration, we can conclude that the new instrument is valid. We have to rely on more dishonest methods to assess a survey's validity, such reordering certain surveys and comparing answers to questions that were asked of multiple teachers. The participant responses were scored, collated, and computed in terms of Cranach-Alpha to evaluate the scales and their dependability. Subsequently, the measurements were validated as appropriate using Alpha 0.72.

RESULTS AND DISCUSSION

The educational transition from a teacher-centered approach to student-centered active learning necessitates a fundamental change in the role of the educator from that of a didactic teacher to that of a facilitator of learning. The withdrawal of teachers from their conventional role of lecturing to students in front of the class is a typical component of the active learning technique. Teachers' answers about using the "Lecture Method" range from never to often, as Table 1 illustrates. In light of this, 135 professors (92.4%) responded that they always used the lecture method. Among teachers, more than 11 (7.6%) stated frequently. The responses from respondents had a mean value of 4.20. These demonstrate that the "Lecture" method is

Merga H. & Melka H.

used more frequently. Because both teachers and students were familiar with this strategy, it was used extensively. Asrat (2014) asserts that while the traditional teaching style, which emphasised lectures, whiteboards, and text

Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114

books, is still widely employed, the majority of teachers do not use the many active learning approaches as intended.

Table 1

Teaching Approaches

No	Teaching approaches	Respondents	Always		Frequently		Some times		Rarely		Notat all		Mean	Std deviation
			Fr	%	Fr	%	Fr	%	Fr	%	Fr	%		
1	Lecture	Teachers	135	92.4	11	7.6	-	-	-	-	-	-	4.20	.701
2	Project method	Teachers					28	19	103	70.5	15	10.5	3.09	1.197
3	Problem solving	Teachers	3	2	25	17	98	67	20	14	-	-	2.61	1.146
4	Role playing	Teachers	-	-	-	-	1	0.7	78	53.4	67	49.5	2.14	.852
5	Discussion	Teachers	22	15	43	29.5	72	49.3	9	6.2	-	-	3.77	.743
6	Brain storming	Teachers	14	9.5	19	13	92	63	8	5.5	13	9	2.02	.698
7	Peer teaching	Teachers	3	2.1	18	12.3	65	44.5	39	26.7	21	14.4	1.91	.830
8	Cooperative learning	Teachers	15	10.3	12	8.2	98	67	17	11.7	4	2.8	1.80	.701
9	Field trip	Teachers	-	-	-	-	-	-	113	77.4	33	22.6	2.86	1.322
10	Group work	Teachers	8	5.5	48	32.9	75	51.4	15	10.2	-	-	4.09	.792
11	Question & answer	Teachers	2	1.4	27	18.5	84	57.5	33	22.6	-	-	2.82	.870
12	Debating	Teachers	-	--	-	-	25	17.1	20	13.7	101	69.2	2.02	.772
13	Discovery	Teachers	14	9.5	19	13	92	63	8	5.5	13	9	1.98	.875

One of the most widely used active learning techniques is discussion. The teachers' answers on the "Discussion Method's" usage varied from always to infrequently, as Table 2 illustrates. As a result, 22 teachers (15%) responded that they used the "Discussion Method" "always." The majority of teachers—more than 43 (29.5%), 72 (49.3%), and 9 (6.2%)—said they used the words

"frequently," "sometimes," and "rarely," respectively. The mean answer rate is 3.77, which is extremely near to 4. This suggests that students engage in "Discussion" on a regular basis. However, the information gathered from classroom observations showed that 65% of the students in the classrooms were taking part in group discussions of the issues.

Merga H. & Melka H.

The instructors' answers on the usage of "group work" range from always to infrequently, as Table 2 illustrates. Consequently, 8 (5.5%) of the educators said that group work was used "always". Furthermore, the instructors' responses were "frequently," "sometimes," and "rarely," respectively, 48 (32.9%), 75 (51.4%), and 15 (10.2%). With reference to the question-and-answer format, 84 (57.5%) of the teachers' responses indicated that they used the format "sometimes," with a mean score of 2.82.

This suggests that most educators use the question-and-answer format sometimes. Regarding the problem-solving approach, 98 (67%) of the teachers' responses indicate that the schools "sometimes" used this approach. Although 25 (17%) of the teachers reported using the problem-solving strategy "frequently," 20 (14% of the teachers) indicated they used it "rarely." Based on observations of student behaviour, it was found that 70% of classes lacked problem-solving tasks.

In reference to brainstorming and cooperative learning, 98 (67%) and 92 (63%), respectively, of the teachers' responses indicate that these strategies were "sometimes" used in the classroom. It involves making an effort to boost student involvement and give them leadership and group decision-making experiences while enforcing rules about appropriate use of collaborative skills, group processing, positive interdependence, individual accountability, and face-to-face interaction to promote interaction.

Table 2 demonstrates the percentage of teachers who employed the peer teaching and discovery approaches, which were 65 (44.5%) and 92 (63%) respectively. The discovery

Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114

technique has a mean value of 1.98, while peer teaching has a mean value of 1.91.

112 (83.6%) of the respondents indicated that they always employ the explanation technique in their responses. 3.50 is the mean.

In the governmental primary schools of East Wollega, the other active learning strategies—project method, role play, debating, and field trip methods—are used infrequently or never at all. The notion that instructors did not employ a variety of active learning strategies was supported by instructional observations. Most of the time, instructors conducted lectures during class. Furthermore, virtually no teacher keeps an eye on the activities and participation of their students. Based on observation, all classes' pupils did not engage in role-plays; 65% of all classes just listened to the teacher and took notes from the whiteboard, and 85% of all classes did not engage in a role-play. Ninety percent of pupils did not take part in peer teaching activities, and there were no demonstrations. The use of active learning is more theory than practice, according to data gathered from interviews with cluster supervisors, vice principals, and school principals. These issues include large class sizes, teacher workloads, a lack of materials, a lack of interest, and other complaints from teachers about their working conditions.

Principals, deputy principals, and cluster supervisors were interviewed, and the results showed that many teachers were not using active learning strategies to their full potential. Overall, it can be said that certain Woreda primary schools always employ the lecture technique.

As a result, the information gathered from surveys, interviews, and reactions to

classroom observations reveals that active learning strategies are not widely used in

elementary schools.

Table 2

Factors Affecting the Implementation of Active learning

No	Factors Affecting Implementation of Active learning Methods	Respondents	4		3		2		1		Mean	Std deviation
			Fr	%	Fr	%	Fr	%	Fr	%		
1	Teachers tendency to use traditional/ lecture method	Teachers	129	88	17	12	-	-	--	--	3.27	.82
2	Shortage of time to practice active learning in classroom	Teachers	115	79	22	15	9	6	-	-	2.82	.924
3	Student lack of interest in active learning	Teachers	82	56	31	21	25	17	9	6	3.32	1.020
4	Teachers lack of interest in active learning	Teachers	49	34	72	49	19	13	6	4	2.27	.829
5	Average number of students in one class		114	78	32	22	-	-	-	-	3.32	.950
6	Lack of resources to implement active learning	Teachers	33	23	79	54	20	13	14	10	1.93	.509
7	Lack of time table	Teachers	14	10	39	27	34	23	59	40	3.70	0.7
8	Large class size	Teachers	109	75	25	17	9	6	3	2	2.07	.846
9	Teachers attitudes about active learning	Teachers	61	42	43	29	25	17	17	12	1.89	.722
10	The design of the text book	Teachers	12	8	21	14	42	29	71	49	2.80	.851
11	Diversity of students' interest	Teachers	4	3	9	6	32	22	101	69	3.41	.726
12	Students' dominance during group activities	Teachers	98	67	38	26	10	7	-	-	2.40	.981
13	Lack of pedagogical centers	Teacher	29	20	43	29	33	23	41	28	3.41	.726
14	Lack of instructional materials to implement active learning	Teacher	92	63	47	32	7	5	-	--	3.11	.940
15	Absence of conducive school environment	Teacher	77	53	59	40	10	7	-	--	2.40	.981

It is now astonishing that one of the main factors in the use of active learning is the teachers' inclination to employ the traditional lecture style (item 1). 88% of teachers deemed this factor to be serious. It is also anticipated that student domination during student engagement, such as group activities, will have an effect on how active learning is

conducted, since active learning is pointless without efficient classroom management.

Consequently, the average number of students in a class is a key component in implementing active learning and student participation. 78% of educators deemed this to be a significant factor. However, data from classroom observations showed that there were typically between 80 and 99 students in

Merga H. & Melka H.

each class, which made it difficult to monitor and manage every student's work. The other problem identified as impeding the implementation of active learning is large class sizes. Seventy-five percent of the teachers identified this as the most important component of using active learning. The researcher discovered that the biggest obstacles to the implementation of active learning were large class sizes. Furthermore, implementing active learning in environments with large class numbers and reluctant teachers can be extremely difficult.

Another thing that has been noted as impeding the implementation of active learning is a lack of time for it in the classroom. According to 79% of educators, this is the biggest obstacle to the use of active learning. Therefore, a deficiency of instructional materials is the primary prerequisite for integrating active learning and student involvement. This factor was deemed serious by 64% of administrators and 63% of instructors. The lack of a supportive learning environment in the classroom was selected by 53% of instructors as the factor that prevents the adoption of active learning the most. The status of the classroom is one of the most important non-human factors of applying active learning methodologies. A conducive, calming, and non-threatening environment is required for learning to take place efficiently.

The seating arrangement does not promote active learning, there is not enough area between the desks and students for instructional activities, and there is not enough room for everyone to sit down, according to data gathered from observations made in the

Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114

classroom. The majority of the time, the physical configurations of classrooms do not align with the requirements for active learning strategies.

Additionally, 56% of teachers listed the students' interest as the second-biggest obstacle to the use of active learning. Implementing active learning has been found to be hampered by teachers' attitudes towards it. It is recommended that active learning be used in the classroom; 42% of teachers who employ active learning identified this as the most important component.

In addition to this, results from observation of classroom instruction indicate that:

- i. It is observed that the pupils and desks are arranged traditionally with their backs to the chalkboard.*
- ii. Not all students have enough room to sit, and the seats are stationary.*
- iii. Active learning techniques were not incorporated into the lesson plans created by the teachers in the designated teaching method space.*
- iv. The lecture method was the one that was used the most.*
- v. Before the class began, the teachers were given the oral questions.*
- vi. A small number of students conducted class activities during group work and discussions, and group work and discussion techniques were occasionally used.*

Table 3*Attitudes of Teachers and Students towards Active Learning.*

No	Attitudes of teachers	Respondents	5		4		3		2		1		Mean	Std deviation
			Fr	%	Fr	%	Fr	%	Fr	%	Fr	%		
1	Active learning prepares students for participation	Teachers	131	90	15	10	-	-	-	-	-	-	4.38	0.866
2	Students learn when there is interaction	Teachers	75	51	48	33	20	14	3	2	-	-	4.36	0.857
3	Teaching facts alone is enough to prepare students to understand their environment	Teachers	-	-	-	-	92	63	45	31	9	6	2.91	1.104
4	Teachers must encourage students to communicate effectively	Teachers	96	66	48	33	2	1	-	-	-	-	4.40	0.889
5	Teaching must prepare students to solve Problem	Teachers	119	82	20	14	5	3	2	1	-	-	2.91	1.104
6	Active learning is intellectually more Stimulating	Teachers	103	71	37	25	6	4	-	-	-	--	4.3	0.879
7	Active learning enhances the development of sense commitment	Teac-hers	81	56	53	36	12	8	-	-	-	-	4.31	0.874
8	Active learning offers opportunities for Progress	Teachers	94	65	47	32	5	3	-	-	-	-	4.02	0.892
9	Current knowledge depends on the previous understanding	Teachers	76	52	44	30	18	12	8	6	-	-	4.31	0.874
10	Active learning makes students responsible for their own learning	Teachers	121	83	25	17	-	-	-	-	-	-	4.22	0.902
11	Active learning more advantageous for long term retention	Teachers	97	67	32	22	12	8	5	3	-	-	4.44	0.867
12	Active learning adds workloads on Teachers	Teachers	14	10	19	13	59	40	49	34	5	3	4.38	0.647
13	Teacher gives constructive feed back to the students' work.	Teachers	128	88	18	12	-	-	-	-	-	-	4.39	0.642

Merga H. & Melka H.

Teachers agree and disagree on all matters pertaining to teacher attitudes regarding active learning approaches, according to the research. Active learning approaches can be successfully implemented when teachers have a positive attitude toward them.

Successful learning achievement may be impacted by the teachers' positive attitude, the teaching strategies employed in the classroom, their enthusiasm, and their activities. Therefore, a teacher's attitude can have an impact on students' use of active learning strategies. Teachers were questioned about their knowledge and experience of active learning with this fact in mind. Using the questionnaire administered to teachers, responses about their attitude toward active learning were presented below: As shown in Table 3, Item 1 says active learning prepares students for participation; it was widely supported by teachers. Since 90% of the teachers' responses strongly agreed, the mean value of their responses was 4.38. Hence, all teachers agreed on the idea. Accordingly, in item 2 on the same tables, 51% of teachers' responses show strongly agree, and 33% of teachers' responses show agree. In Item 3 of the same table, 63% of teachers' responses show undecided, and 31% of teachers' responses show disagreeing that teaching facts alone is enough to prepare students to understand their environment. Item 4: 66% of teachers' responses show strongly agree, and 33% of teachers of responses show agree, respectively. Item 5: 82% of teachers responses strongly agree 14% of teachers' responses show agreement. The majority of respondents indicated their agreement with the statements that teachers must support students

Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114

in effective communication and that teaching must equip students to address problems.

The majority of teachers appear to have good views about active learning, according to the general analysis of nearly all the categories. Thus, it may be concluded that teachers have a favorable perception of active learning. As a result, it also seems that virtually all of the teachers demonstrated their strong agreement with the premise of active learning stated in the surveys. Overall, this finding's conclusion showed that teachers had a favorable attitude toward teaching strategies that promote active learning. Active learning is well-liked by both students and teachers as an efficient teaching strategy to be used in primary schools. As a result, it seemed that practically all of the teachers strongly agreed with the assumption of active learning stated in the questionnaires. We can tell that teachers have a positive perception of active learning based on how much they agree with its underlying premises. However, their upbeat outlook prevents individuals from engaging in active learning in the classroom. This was also seen in the interview and observation sessions in the classroom.

The average effectiveness scores of male and female teachers with respect to the utilization of active learning were found to be insignificant ($p > 0.05$) (Table 4). The highest t-test values were not observed between male and female teachers, which was comparable ($p > 0.05$). Moreover, the two groups were insignificantly ($p > 0.05$) different from each other. In general, there is no statistically significant difference between male and female teachers in utilizing the various forms of active learning. Since the p value of all the teaching methodologies is greater than 0.05,

Table 4*The extent to which male and female teachers practice active learning approaches*

Independent Samples Test		Levels test		t-test for Equality of Means						
		F	Sig.	T	Df	Sig.	Mean	Std.	95% Confidence Interval	
									Lower	Upper
Lecture	Equal variances assumed	.369	.547	1.645	42	.108	.333	.203	-.076	.742
	Equal variances not assumed			1.595	30.805	.121	.333	.209	-.093	.760
Project	Equal variances assumed	.015	.903	1.051	42	.299	.285	.272	-.263	.833
	Equal variances not assumed			1.086	37.709	.284	.285	.263	-.247	.818
Problem solving	Equal variances assumed	1.668	.204	.664	42	.510	.185	.279	-.378	.748
	Equal variances not assumed			.605	24.781	.550	.185	.306	-.445	.815
Role plying	Equal variances assumed	4.179	.047	-.219	42	.828	-.048	.219	-.489	.394
	Equal variances not assumed			-.200	24.909	.843	-.048	.240	-.542	.446
Discussion	Equal variances assumed	.888	.352	.056	42	.956	.015	.274	-.537	.567
	Equal variances not assumed			.054	30.253	.957	.015	.283	-.563	.594
Brainstorming	Equal variances assumed	1.987	.166	-.222	42	.825	-.054	.245	-.550	.441
	Equal variances not assumed			-.242	41.653	.810	-.054	.226	-.510	.401
Peer teaching	Equal variances assumed	.102	.751	.424	42	.674	.100	.237	-.377	.578
	Equal variances not assumed			.416	32.201	.680	.100	.241	-.390	.591
Cooperative	Equal variances assumed	.047	.830	.039	42	.969	.011	.283	-.559	.581
	Equal variances not assumed			.038	32.743	.970	.011	.286	-.571	.593
Field trip	Equal variances assumed	.520	.475	.914	42	.366	.211	.231	-.255	.678
	Equal variances not assumed			.890	31.178	.380	.211	.238	-.273	.696
Group work	Equal variances assumed	2.024	.162	.800	42	.428	.237	.297	-.361	.836
	Equal variances not assumed			.760	28.592	.453	.237	.312	-.402	.877
Question and answer	Equal variances assumed	3.894	.055	.430	42	.670	.120	.279	-.443	.683
	Equal variances not assumed			.380	22.504	.707	.120	.315	-.532	.772
Demonstration	Equal variances assumed	.366	.549	-1.379	42	.175	-.364	.264	-.896	.169
	Equal variances not assumed			-1.295	27.474	.206	-.364	.281	-.940	.212
Debating	Equal variances assumed	.015	.903	-2.189	42	.132	-.379	.173	-.729	-.030
	Equal variances not assumed			-2.078	28.527	.215	-.379	.182	-.752	-.006

Practices of Active Learning

In evaluating the extent to which active learning has actually been carried out in government primary schools, the groups of teachers from the respondents responded to the questionnaire. Also, a structural interview was conducted in order to support the data. To this end, teachers' questionnaires have been created to assess the frequency with which different educational techniques are used.

The examination of data on the implementation of active learning approaches suggests that teachers implement active learning rarely in their classrooms.

The use of active learning by teachers was mentioned in the teachers' responses, which were supported by classroom observations of the teaching and learning process.

The most commonly practiced active learning strategies reported by teachers were lectures, question and answer, discussion, group work, and cooperative work, respectively. These methods were employed widely because, most likely, the teachers were familiar with them. But these strategies, especially lecture, discussion, and group work, can help to develop only a lower level of cognitive domain. On the other hand, other active learning strategies related to a higher level of cognitive domain believed to develop the critical thinking and problem-solving capacity of the students were not widely practiced.

In line with this, Bonweel and Eison (2003) noticed that students must do more than just listen. They need to read, write, discuss, or engage in problem-solving activities. They must talk about what they learn, write reflectively about it, relate it to past experience, and apply it to their daily

lives. They must engage in solving problems. Similar to the previous one, discussion, cooperative learning, and problem solving had been practiced sometimes in the schools, as depicted in the finding.

In a real active learning model, students must be engaged in higher-order thinking skills such as synthesis, analysis, and evaluation. Again, strong relationships between the attitudes of teachers and students were established between group work and discussion. In general, almost all the teachers agree that some active learning methods take place sometimes.

Finally, the remaining active learning strategies—role-play, debating, and project work—are rarely practiced in primary schools, as depicted in the findings. Based on the position of the respondent's questionnaires' interview and observation, the researcher. Therefore, it is possible to infer that the extent to which active learning is utilized in governmental primary schools is low.

Factors affecting the implementation of active learning

Like any other educational issue in the teaching-learning process, it is also possible to think that active learning may have shortcomings or constraints during its implementation in real classroom conditions. Of these constraints, the most serious factors affecting the implementation of an active learning approach are the following:

Large class size

Teachers are concerned about class size for a variety of reasons, including the positive effects that might result from classes that are conducted in conducive environments for both instructors and students.

Merga H. & Melka H.

The main issues with class size are related to how it affects student achievement, teacher morale and health, and administrative effectiveness. Though other factors, such as the teacher's expertise, the accessibility of resources, the type of learners, the subject matter, or the learning objectives, all affect the size of the class (EQUIP, 2006),.

The maximum number of pupils allowed in a class was set by the Ministry of Education at 50 (MOE, 2005). The study demonstrates that most classrooms have subpar conditions that make it difficult to use active learning techniques. The information acquired through questionnaires, interviews, and observation checklists demonstrates that it is challenging to assess, manage, and put into practice active learning as intended due to the huge number of pupils in a class.

Shortage of time

A lack of time is among these factors. With respect to this problem, the two groups of respondents agreed that time was the major problem negatively affecting the implementation of active learning.

The teacher's tendency towards the traditional lecture method

Many teachers in this study blame the teachers' propensity for the traditional lecture technique as a barrier to the adoption of active learning.

Regarding this issue, the group of respondents once again concurred that the primary issue impeding the successful implementation of active learning was teachers' propensity for using conventional ways of lecturing or elaborating.

Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114

In this regard, Hailom (1998) provides an explanation of why professors tend to use the conventional lecture technique. He emphasizes that many teachers view teaching as a process of knowledge transmission in which the teacher imparts knowledge to the pupils, who then acquire it in accordance with a predetermined official syllabus. It has been noticed that students occasionally label teachers who encourage them to engage in active learning as unprepared or inept.

Attitudes of teachers towards active learning

The attitude of teachers toward activity-based learning is a problem in student education because if the teacher is not enthusiastic about activity-based learning, he or she will not accomplish the lesson's goals. Performance is positively impacted by people's positive views toward their work.

This is especially true of the teaching profession. In other words, teachers who have a favorable attitude toward active teaching techniques are more likely to incorporate active learning approaches into their lesson plans.

Additionally, Reinke & Moseley's study from 2002 revealed that educators with a pro-student-centered attitude were more likely to show an interest in incorporating fresh concepts and innovative methods into their lesson plans for the courses they are assigned to in the beginning of student-centered classroom activities, for example, a student who is used to traditional passive instructional methods, which just demand listening, may appear shy and uncooperative or destructive and antagonistic.

There is a high correlation between teachers' attitudes toward active learning and their

Merga H. & Melka H.

efforts to put it into practice, according to a number of research findings.

According to these concepts, thirteen questions were added to the questionnaires for the teachers to gauge their knowledge or attitudes toward active learning.

Because of this, it seemed that practically all of the teachers strongly agreed with the assumption of active learning stated in the questionnaires. We can tell that teachers have a positive perception of active learning based on how much they agree with its underlying premises.

However, their upbeat outlook prevents individuals from engaging in active learning in the classroom. Additionally, this was observed in the classroom.

In a similar vein, Kaufman (2004: 3110) notes that although teachers are aware of the benefits of utilizing active learning, they do not readily transition to a student-centered approach to apply active learning styles. To implement the innovations in the teaching and learning process successfully, it is good to have a general attitude change.

The majority of teachers appear to have good views regarding active learning, according to the analysis of nearly all the items. Thus, it is clear that the teachers had a favorable impression of active learning. As a result, it also appears that practically all teachers demonstrated their strong agreement with the premise of active learning presented in the questionnaires.

The key point being made is that human behavior and the effort to carry out or practice any task are strongly correlated. Overall, this finding's conclusion showed that teachers had a favorable attitude toward teaching strategies that promote active learning. Active learning

Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114

is well-liked by both students and teachers as an efficient teaching strategy to be used in primary schools.

The extent to which male and female teachers practice active learning approaches

The examination of the independent sample t-test reveals that all of the above-mentioned teaching approaches had p values greater than 0.05, making them all inconsequential. Therefore, it suggests that there is no statistically significant mean difference in the use of the active learning technique by male and female teachers.

In contrast, no difference in discipline-specific teaching between male and female teachers based on gender. Therefore, it is crucial to investigate whether and how gender differences may change dependent on various course parameters, such as the discipline area, class size, or whether the course is part of the general education curriculum. This goes beyond simply studying how men and women teach differently.

The majority of male and female teachers generally use the active learning approach in a similar way. In terms of the use of active learning, the average effectiveness scores of male and female teachers were found to be non-significant ($p > 0.05$).

Male and female teachers did not exhibit the highest t-test values, which were equivalent ($p > 0.05$). Additionally, there was no statistically significant difference between the two groups ($p > 0.05$).

In general, there is no statistically significant mean difference in the use of different active learning approaches by male and female

Merga H. & Melka H.

teachers. Since all instructional methods have p values greater than 0.05,

CONCLUSIONS

The study's findings led to the following conclusions, which were made:

In terms of the number of active learning methods used, lectures, group discussions, and question-and-answer sessions were found to be the most frequently used, while cooperative learning, problem solving, and brainstorming sessions were sometimes used. The approaches of projects, role plays, peer teaching, arguing, and exploration were rarely used. From this, it can be inferred that there were few active learning practices.

The following were determined to be the most serious factors that affect the active learning approach with regard to the main parameters that influence its implementation: The preference for the traditional lecture method among teachers and students.

- i. Large class size.*
- ii. Lack of resources.*
- iii. Time constraints.*
- iv. Shortage of time,*
- v. Unfavorable class room conditions.*

The research findings regarding teachers' attitudes toward active learning showed that practically all teachers had a good perception of active learning. It is challenging to implement active learning strategies practically without teachers who have positive attitudes.

The examination of the independent sample t-test reveals that all of the above-mentioned teaching approaches had p values greater than 0.05, making them all inconsequential. Therefore, it suggests that

Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114

there is no statistically significant mean difference in the use of the active learning technique by male and female teachers.

RECOMMENDATIONS

Following are some recommendations that have been made in light of the study's findings and conclusions. To enhance the practice and to improve the difficulties of the active learning technique in the East Wollega Zone's primary schools:-

1. Active learning was found to be practiced at a low level in the majority of primary schools in East Wollega Zones. Similar to this, schools did not utilize various active learning teaching strategies to their full potential.

Therefore, the quality of the teaching-learning process in elementary schools is significantly impacted by the inadequate implementation of active learning methodologies. As a result; it is advised that individuals with experience provide ongoing and in-depth orientations to teachers on practical aspects of active learning through collaboration with the stakeholders.

Additionally, the woreda education office, cluster supervisors, and school principals should pay educational visits to model schools to share experiences from others in order to bring about change.

Furthermore, the school must take advantage of every chance to familiarize students with adapting educational theories and technologies by arranging the professional articles, periodical materials, current affairs writing, etc. that are available.

2. The following are the main factors that affect the use of active learning strategies: -

- i. Teachers' propensity for lecture*

Merga H. & Melka H.

- ii. *style instruction;*
- iii. *Majority of students' dependence on the minority;*
- iv. *Time constraints;*
- v. *A lack of support from the education office;*
- vi. *A lack of teachers' commitment;*
- vii. *A lack of teaching resources;*
- viii. *A lack of facilities;*
- ix. *Some students who are less interactive and unwilling to cooperate;*
- x. *A high workload each week;*
- xi. *Large class sizes were regarded as a barrier to implementing active learning in East Wollega Zone elementary schools, Oromia regional state.*

There must be a variety of actions made in order to reduce and gradually prevent these issues. In light of this, it is recommended that the Regional Education Bureau, Zonal and Woreda Education offices collaborate in order to provide schools with the instructional materials they require, such as reference books and pedagogical centers.

In order to conduct active learning, classrooms must be visually attractive and have adequate area for correct seating arrangements.

However, this investigation showed that poor classroom conditions were discovered. As a result, it is strongly recommended that the community, cluster supervisor, and school principals collaborate to enhance the atmosphere for learning.

3. The following recommendations are made in order to create a favorable environment and maximize teachers' and students' positive attitudes toward the active learning strategy:

- i. *Teachers should not be given more load periods per week. Because they*

Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114

are unable to adopt an instructional strategy that promotes active learning while carrying a heavy teaching load. Therefore, all teachers must be aware of the fact that active learning involves engaging students in a variety of practical activities, which by their very nature keeps them occupied.

- ii. *It also requires teachers to be aware of this reality and to make a concerted effort to prevent unwarranted dominance among students during group discussions.*

ACKNOWLEDGMENTS

The authors thank Wollega University for providing the necessary facilities.

DECLARATION

The authors declare that there is no competing interest regarding the research.

DATA AVAILABILITY

The necessary data are available within the article materials.

REFERENCES

- Ababa, A. (1994). Education and Training Policy. *Development, 23*, 24.
- Antwi, S. K., & Hamza, K. (2015). Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European journal of business and management, 7*(3), 217-225.
- Asok, D., Abirami, A. M., Angeline, N., & Lavanya, R. (2016). Active learning environment for achieving higher-order thinking skills in engineering education. In *2016 IEEE 4th International Conference on MOOCs, Innovation and Technology in Education (MITE)* (pp. 47-53). IEEE.

- Merga H. & Melka H.
- Asrat, B. (2014). *The Utilization of Active Learning: The Case of Nifas Silk Lafto Sub-City Governmental Upper Primary School* (Doctoral dissertation), Addis Ababa University, Ethiopia.
- Firdissa, J. A. (2005). Active learning versus the traditional lecture methods of teaching at higher education institutions: a case study of learners' preferences at the Department of Business Education, Addis Ababa University. *Ethiopian Journal of Education*, 25(1), 49-77.
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of mixed methods research*, 1(2), 112-133.
- Kuboja, J. M. (2019). Ensuring academic achievement through the influence of parental involvement in facilitating effective learning: A case of Arusha urban primary schools, Tanzania. *International Journal of Educational Policy Research and Review*, 6(3), 63-70.
- Kuh, G. D. (2003). What we're learning about student engagement from NSSE: Benchmarks for effective educational practices. *Change: The magazine of higher learning*, 35(2), 24-32.
- Mulatu, M., & Bezabih, W. (2018). Perceptions and practices of EFL teachers in implementing active learning in English classes: the case of three selected secondary schools in Dawro zone, SNNPRS, Ethiopia. *International Journal of Education*, 10(2), 88-94.
- Neuendorf, K. A. (2010). Reliability for content analysis. In *Media messages and public health* (pp. 85-105). Routledge.
- Patall, E. A., Cooper, H., & Robinson, J. C. (2008). Parent involvement in homework: A research synthesis. *Review of educational research*, 78(4), 1039-1101.
- Sci. Technol. Arts Res. J., Oct.-Dec. 2023, 12(4), 96-114*
- Peter, O. I., Abiodun, A. P., & Jonathan, O. O. (2010). Effect of constructivism instructional approach on teaching practical skills to mechanical related trade students in western Nigeria technical colleges. *International NGO Journal*, 5(3), 059-064.
- Sadik, A. (2008). Digital storytelling: A meaningful technology-integrated approach for engaged student learning. *Educational technology research and development*, 56, 487-506.
- Shroff, R. H., Ting, F. S., Lam, W. H., Cecot, T., Yang, J., & Chan, L. K. (2021). Conceptualization, development and validation of an instrument to measure learners' perceptions of their active learning strategies within an active learning context. *International Journal of Educational Methodology*.
- Siedlecki, S. L. (2020). Understanding descriptive research designs and methods. *Clinical Nurse Specialist*, 34(1), 8-12.
- Silberman, M. (1996). *Active Learning: 101 Strategies To Teach Any Subject*. Prentice-Hall, PO Box 11071, Des Moines, IA 50336-1071.
- Teshome, A. (2012). Teachers' perceptions and practices of active learning in Haramaya University, Eastern Ethiopia: The Case of Faculty of Education. *Science, Technology and Arts Research Journal*, 1(4), 74-83.
- Vavrus, F., Thomas, M., & Bartlett, L. (2011). *Ensuring quality by attending to inquiry: Learner-centered pedagogy in sub-Saharan Africa*. Addis Ababa, Éthiopia: UNESCO-IICBA.
- Zewdu, K. Y. (2017). Active learning in teaching English language support courses to first-year students in some Ethiopian universities. Unpublished doctoral dissertation. University of South Africa.xte.