



Quality Improvement through Active Learning in Teacher Education

DR. NILESHKUMAR B. GAJJAR

Adhyapak Sahayak,

LNK College of Education, (CTE)-(CPE), Patan

Abstract:

We know that education and its resources increase day to day in this century. But Teacher is most powerful resource for teaching-learning process even in the classroom or via distance mode to sustain the quality of learning in the field of Teacher education programme. Hence, it is most important to improve the level of the quality of learner as well as the teacher educator who engage in this whole programme.

Active learning refers to a broad range of teaching strategies which engage students as active participants in their learning during class time with their instructor. Typically, these strategies involve some number of students working together during class but may also involve individual work and/or reflection.

So, it is very essential that each dimension of this programme must play vital role for Active and qualitative learning. Because, in the teaching-learning process, each pole must keep much attention and concentration in this entire process to create the quality teacher as well as the trainees.

So, keep in mind the above idea, the researcher tried to write the research Article on active learning and its strategies.

Key words: *Active learning, Teacher educator, teaching-learning process*

1. Introduction

Human is curious by nature. Human has a basic tendency to always learn something new. Thus, learning remains a lifelong process. School is such a place, where new knowledge, skills and aptitude are developing in many learners through teaching learning process. But due to excess interference of these institutions in learning environment, the knowledge given there is being accepted as ultimate knowledge, which has resulted into knowledge and skills from that which exists in the society, nature and folk traditions. A farmer, who does the agriculture work efficiently; a sculptor, who makes statues efficiently, who knows the optimum use of trees, their knowledge has no place in the definition of “knowledge” in our educational system. This distance between public knowledge and school knowledge has transformed schools into a machine. In consequence, school started providing only knowledge of theoretical subjects. This distance of school from the social activities has impacted on

methods of imparting subject knowledge. Gradually, teaching process became passive and slowly lost its liveliness.

After various researches, debates and experiments, many thoughts and models have emerged. Lev Vygotsky, Jean Piaget, J.S. Bruner, Albert Bandura, John Dewey are the few famous, who propounded the thoughts of learning by doing, learning by self-experience, learning in real situation, knowledge creation by self, etc. These theories influenced the school environment. Learning methods and dimensions of learning have changed accordingly. Many concepts were introduced as the outcome of these debates. In this unit, concept of active learning, situated learning, cooperative learning and learning in school and beyond the school are introduced. These concepts are not recently introduced. These have been used in every tradition. There is an example of Vedic version, “Sangachhdhvam Samvadadhvam, sam vo` manansi jaantaam” (Rigved 10-9-2), which means move together, speak together, and think together. This verse basically pronounces cooperative learning. There are similar examples in other traditions also. Scholars have explained these concepts according to needs of modern era, in present day contexts. We will also discuss the same.

2. Objectives

After going through this unit, you will be able to;

1. Understand the concept of active learning,
2. Identify the main techniques and strategies for active learning in classroom,
3. Devise appropriate strategy to use observational learning in your class,
4. Explain the concept and main elements of situational learning,
5. Understand the concept of cooperative learning,
6. Apply cooperative learning inside the school as well as outside the school, and
7. Explain ideas related to learning outside of the school.

3. Active Learning

Probably, you may agree that the teacher may teach by using any method or create any learning environment, learning takes place in the mind of learner. So, it is not a hyperbola that learner is active in the learning process necessarily. Thus, you may say that all learning is simply active learning. But active learning is something different. Active learning is not merely the active involvement of learner, but also leadership and initiative should be present in the learner. It is more than listening and following teacher's instructions. Active learning involves self-study, discussion, problem solving, comprehension and cooperation within the group, development of skills and sensibility, higher order of thinking and reflection like analysis, synthesis, evaluation, construction, etc. Thus, active learning “is anything that involves students in doing things and thinking about the things they are doing”(Banwell and Eisan, 1991,p.2). In active learning environment, learners give more importance to construction of the knowledge by self, in place of accepting the knowledge given by teachers. Thus, learners are not only the transporter of knowledge. There are ample evidence of active learning in the traditional Indian Literature during Upanishad era. There are so many verses that reflect the learner's initiation and activeness is needed in acquisition of knowledge. Statement of UddalakShwetketu in Chhandyogya Upanishada and Yam-Nachiketa Samwad in Khathopanishada are prominent examples of this. Following Shubhasita in Indian tradition also supporting this:

**Acharyat Padmadatte paadam Shishya Swamedhaya!
Sarahmcharibhaya paadam paadam kalkramn cha!!**

It means, learning takes place one fourth with the help of Acharya (Teacher), one fourth by talent and self-attempts, one fourth from peers and one fourth by situation as it emerges on time. Above mentioned verse indicates active learning, Pragmatism, Naturalism, and thoughts of other Western Philosophies advocate active learning. Constructivism has established active learning systematically in modern education system. Learning by doing, learning by self-experience, play way method, technology-based education, activities-based learning, group work, project method, heuristic method, etc. are the terms used as an alternative of active learning. Covering all of the above concepts in modern contexts, systematic debate on the conception of active learning as a model of instruction began since 1991. When higher education report was published in 1991 entitled “Active Learning” created excitement in the classroom by association for the study of higher education and educational resources information centre (ASHEERIC) in USA. It was prepared by Banwell and Eisan. This report discussed in details the concept of active learning and its various dimensions, methods to include it in classroom. Addition strategies required hindering factors, recommendations related to teacher, trainer, administrators, and researchers. We will discuss few of these here.

3.1 Active Learning in Classroom

Banwell and Eisan (1991) quoted a reference written by Creed (1988) in their report. “**When asked why he lectures, one professor responded: It is tradition, it was part of my training and seems like what I should be doing. I feel somehow guilty when I am not lecturing**”, (cited in Banwell and Eisan, 1991, p. 7). Whenever we teach, this dilemma appears before us because lecture has become synonymous to teaching. When we talk about using active learning or any such optional approach or method, maximum teachers do not accept it due to their prejudices, although, active learning is not entirely different in approach. The methods of learning in which learners get opportunities of reading, writing, discussion, problem solving, analysis, synthesis, evaluation, creativity, etc. rather than listening come under Active Learning. Thus, Active learning modifies lecture method and includes active elements of learner. Thus, Lecture method can be modified with the help of main techniques of active learning. Following are the few technologies being used for modification of lecture.

- **Pausing:** According to Rowe (1980), Pausing enhances the understanding and retention. In this method, during lecture, pausing can be used three times of two minutes duration. There should be the interval of 12-18 minutes between two pausing. Learners are asked to divide themselves among two groups and note down the main points of lecture in these two minutes. Teacher does not interfere during this time. At the end of the lecture, three minutes are given to learners for noting down the main points of lecture on the basis of memory.
- **Tests and Quizzes:** Informal Tests and Quizzes can help in keeping learners active during the lecture. Verity of Quizzes can be used in the classroom on any topic, which not only helps in retention of knowledge, but also motivates learners to remain participative.
- **Demonstration:** Active learning environment can be created through demonstration. It is more common in science classroom. Options may be explored in other subjects too. A teacher can involve learner actively in experiments as well as demonstration, which can result in better understanding and more retention of content.

3.2 Alternatives of Lecture Method

Researchers have suggested few alternatives to lecture method, like Feedback Lecture, Guided Lecture, Learner Generated Questions and Responsive Lecture, etc. Let us discuss all these in brief:

- **Feedback Lecture:** This lecture is conducted through supplementary study guide in which study materials, pre and post the test, aims of study and format of comments for lectures are already given. This includes two small lectures of 20 minutes of each, which are divided into small group study sessions. During these sessions, learners respond to questions for discussion in two divided groups based on lecture materials provided by teachers.
- **Guided Lecture:** Another alternate is Guided Lecture. Teacher spells out the aim of the lecture, makes instruction likes to stop writing and listen carefully, which are being stated, so that you can keep maximum concepts and provided matters in your memory. This follows a lecture of 25-30 minutes. Learners are asked to write the points from the lecture in 5 minutes based on their memory. It is followed by small group discussion through which they elaborate all the points. They can take help from teacher for detailed explanation of any point during this time. Then, the learners are asked for thinking and at the same day, they are suggested to describe the main points of lecture without reference. Thus, this method develops listening and information synthesis skills.
- **Learner Generated Questions and Responsive Lecture:** The responsive lecture was designed to provide feedback about the study material as per the needs of each learner. There should be one class assigned in every week for such lecture, in which self-made open ended questions on any aspect of textbook can be asked by learners and responded to by the teachers. There are certain conditions associated with this lecture, i.e. inclusion of all aspects of textbook, all learners should ask question necessarily and explain the importance of the particular question.

3.3 Active Learning in Large Classes

Creating active learning environment in a large classroom is very difficult. Assuring active participation of all learners is more challenging, when numbers is 100 or more in one class. Research have shown that when active learning environment is created in large classroom, then the achievement of learners is more in small group presentations, written report, oral presentation, etc. as compared to learners from a small class. In our Indian schools, many a times you have to create active learning environment in large classroom. Arrangements in class should facilitate teacher's interaction with learners. Active learning environment can be created easily group discussion by making group of 5 to 10 learners in each group, followed by presentation the learners.

3.4 Strategies for Promoting Active Learning

Here are few strategies, which can be used to promote active learning environment your class.

- **Visual-Based Instruction:** Under this method, instructions are planned, Assisted/ based on stagnant projection (slide, overhead transparencies) film, multimedia presentation, TV, Video, etc. to create an active learning environment. You may have experience in your classroom that such visual based instructions enhance interest in learning and make them more active during the class.
- **Creative Writing:** Creating supportive environment for critical and creative writing comes under it. Writing related works, like writing comments on sides of research journals, writing thoughts on any specific title, writing summary of a lecture, writing summary on any given study material, essay writing and other creative like writing for all magazines, newspapers etc. can help in

developing active learning environment. Writing and creative writing play a very effective role in developing deep understanding on any subject.

- **Problem Solving:** We often try providing solutions to problem of learners in our classroom; due to this, learners do not get opportunities for searching new and different solution of problems. Consequently, they do not get enough opportunities for developing high order thinking ability. So, we should train learners to use problem solving method in order to find out the solutions of various problems, so that they actively find out the way to solve their problem on their own. You can use the technique based on Decision Making Model of John Dewey (1924), which have four steps: (i) defining the problem; (ii) find out the main reasons the problem; (iii) find out all possible solutions; (iv) evaluation all possible solutions and selecting most appropriate solution. Popular instructional approaches being used for problem solving are case study and Guided designs.
- **Computer-Based Instruction:** In these individualized instructions are given through computer. Learners learn according to their pace. Present day initiatives like MOODLE (Modular Object-Oriented Dynamic Learning Environment) and MOOCs (Massive Open Online Courses) are mainly computer-based instructions. You can also develop your own computer-based instructions to make active learners active.
- **Co-operative Learning:** You will agree that learners have different kinds of abilities and characteristics. If they develop understanding on any subject and find out solution of any problem together with the help of each other, they achieve the best result. They get opportunities to develop social skill as well like decision making ability and communication etc.
- **Drama:** Drama is also a very interesting method, in which learners are active and involved. Remember your childhood days when story with dialogue retained itself for long time in memory. If drama is used as a medium of instruction to develop understanding of the subject, then surely learners will participate actively in the learning process.
- **Role Playing, Simulations and Games:** These are also very interesting methods, where learners get involved with interest. These methods will be very beneficial in instruction subjects like History, Mathematics, Science; Languages can integrate these methods very easily.

3.5 Obstacles in Active Learning

There are many obstacles in creating active learning environment in the classroom. Teacher generally does not want to change the traditional teaching learning process. Attachment with lecture method may be one of the reasons. Sometimes teacher wants an escape from the burden of learning a new method and practice it, because it may be time consuming and hard to learn. Teacher may not have a strong belief in possible outcomes of a new technique. Commercial and management systems may not be ready to accept these new changes at teacher's workplace. At some places learner and their parents also oppose these changes as there is a natural interest against the new system, which may cause strain. Lack of any incentive for adopting any new system also a reason, due to which teachers do not want to take the risk. Sometimes teachers may feel that they cannot discuss a fair section of the curriculum with new approach as they are used to traditional method. Development of facilities required for the new system needs labour and money. There is also a scarcity of required resources and additional mechanism for active learning. Developing active learning environment in large classrooms is more challenging.

4. Roles of Stakeholders in Active Learning

Change in conceptual understanding assistance, initiations and systematic attempt by teachers, teacher trainers, researchers, policy makers, management and administrators of schools are very important in eliminating the mentioned obstacles in the part of active learning. Roles of all stakeholders related to education process needs to be ascertained for the development of environment; teachers need to understand deeply the study and training of new strategies and techniques for creating active learning environment. They should be free from prejudice and old concepts. They should practice low risk techniques initially followed by other techniques. Teacher-trainers should train teachers in all strategies, methods and techniques as well as collect experience-based data related to concerned experiments, so that a confidence can be developed. This training may be given as pre-service and in-service. The role of researchers should be for collecting experience-based data through research related to various aspects of active learning environment. Policy makers should create positive environment towards these innovative experiments and give appropriate place in curriculum. Campus managers and administrators should provide patronage for experiments of these innovations in their institutions as well assure the arrangement of needful resources.

5. Conclusion

Quality improvement in teacher education is essential for shaping competent and effective educators who can meet the evolving needs of 21st-century learners. Active learning plays a pivotal role in enhancing the quality of teacher education by fostering critical thinking, collaboration, creativity, and reflective practices among pre-service teachers. Unlike traditional lecture-based methods, active learning involves engagement through discussions, problem-solving, case studies, simulations, group work, and hands-on experiences. These approaches help teacher trainees internalize pedagogical concepts and develop skills required for real classroom environments.

When integrated into teacher education programs, active learning transforms passive recipients of knowledge into active participants in the learning process. This participatory approach not only strengthens subject knowledge and teaching skills but also enhances confidence and motivation. Moreover, active learning encourages future teachers to become lifelong learners, adaptable to educational reforms and innovations.

Institutions that prioritize active learning create a dynamic academic culture where educators model best teaching practices. This results in improved teacher-student interactions, better understanding of diverse learner needs, and higher retention of instructional strategies. Further, it supports the development of professional competencies such as communication, leadership, and decision-making.

To ensure sustainable quality improvement, teacher education institutions must invest in faculty development, provide access to innovative teaching resources, and create an assessment system that values both process and outcome. Curriculum reforms should emphasize learner-centric pedagogies and integrate technology to support active learning.

In conclusion, active learning is not just a teaching method but a foundational strategy for quality enhancement in teacher education. By embracing active learning, institutions can prepare reflective, skilled, and innovative educators who are capable of shaping a progressive and inclusive education

system. Sustainable improvement in teacher education quality depends on a consistent commitment to engaging pedagogies, institutional support, and a culture of continuous learning and reflection.

References

1. Bonwell, C. C., Eison, J. A. (1991). *Active Learning: Creating Excitement in the Classroom* (ASHE-ERIC Higher Education Report No. 1, 1991). Washington, D.C.: The George Washington University, School of Education and Human Development.
2. Lave, J., & Wenger E. (1991). *Situated learning: legitimate peripheral participation*. Cambridge: Cambridge University Press.
3. Lewis, K. G., & Woodward, P. (1984). *What Really Happens in large University Classes?* Paper presented at an AERA annual conference, April. New Orleans, Louisiana: ED 245 590. 41 pp. MF- 01; PC-02.
4. Menges, R. J. (1988). *Research on Teaching and Learning: The Relevant and the Redundant*. *Review of Higher Education*, 11, 59-68.
5. Kelly, B. W., & Holmes, J. (1979). *The Guided Lecture Procedure*. *Journal of Reading*, 22, 602-604.
6. Kelly, B. W., & Holmes, J. (1979). *The Guided Lecture Procedure*. *Journal of Reading*, 22, 602-604.
7. Cowan, J. (1984). *The Responsive Lecture: A Means of Supplementing Resource-Based Instruction*. *Educational Technology*, 24, 18-21.