

## ACTIVE LEARNING STRATEGIES IN CLASSROOM USING ICT TOOL

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### **Abstract:**

*Active learning engages students in learning, using activities such as reading, writing, discussion, or problem solving, which promote analysis, synthesis, and evaluation of class content. Student learning interest increases when active learning methods are employed in the classroom. It improves student's knowledge and retention of material. Active learning engages students in two aspects – doing things and thinking about the things they are doing. Use of technology tools and multimedia helps enhance the atmosphere of the classroom. Different types of active learning strategies such as group discussion, think-pair-share, flipped classroom, brainstorm ideas etc can be implemented in in-class or out-class segment activity.*

**Keywords:** Active learning, think-pair-share, flipped classroom, Blooms Taxonomy

### **Introduction:**

***Frequently, telling or lecturing is not teaching. - -said by “Svinicki and McKeachie”***

Active Learning Strategies help to initiate learners and teacher into effective ways to help learners engage in activities based on ideas about how they learn. Doing something with information being engaged with the material is necessary for a learner to store new information in long term memory. Learners must work with the information to make it part of their understanding. One of the most obvious ways to increase your classroom qualities is to increase the amount of active learning in your class.

### **Why active learning be included in teaching methodology?**

In the before teaching pedagogy teacher mainly focus on - how to prepare for lecture, how to explain the concept, how can the topic be explained better etc. Many efforts are being taken for better lecture delivery. The important is how much the student get the concept, are student actually learning?

Lecture is delivered smoothly after the preparation of two to four hours. During the lecture student may ask question were the doubt is solved, any of the student can interrupt also during presentation or delivery of lecture, where even the doubt may be clear or it may be cleared after the completion of topic. But from this it cannot be judged that all students have learned from it. So basic point comes here is better quality of delivery of lecture does not lead to better learning. This is called perceived learning were student can be asked how much they have learned. But this will be not a proper judgment.

Whereas actual learning is to take a test or to give a demonstration from which student can perform better in exam or test. This is why we should adapt/learn active learning in lectures.

### **What the active learning?**

Teacher delivery the lecture smoothly and at last of the 5min of lecture asks students having a doubt. If doubts are raised they are clarified and teacher wind up the lecture by considering it lecture delivered properly where student gained the knowledge.

Now suppose another teacher delivered the lecture for 20 min n in between it ask students having any doubt. If doubt raised it clarify it and continue. Now, another teacher explain the topic for 15 to 20 min and pause and ask the student to write notes of taught topic by giving 5 min time, after that it ask the students to have a discussion on notes within a group so that no points should be missed out from their notes by actively engaging them in class and continue with next topic. Teacher can also ask students to have a debate on a taught topic, so they are engaged in the classroom. Teacher can also have a discussion with student by taking the application of the taught topic. This is what the active learning is where teacher has to spend time outside of the classroom in order to come up with the activities via which

student talk, write, reflect and express their thinking within the class.

### Benefits of Active Learning

Active learning should be implemented in theories of learning where student should reflect themselves, write up, talk, express themselves which ensures that there will be contiguous development in students. It should not considered regarding the scores of marks, but student will be more engaged in class, being motivated for topics to be learned, forces them to work with the topic taught, how much they have learned can be discovered.

### Different types of Active learning Strategies

Teacher should select activities that fit the content being taught, the learning objectives of your class, your students' interests and abilities, and your teaching methodologies. Using the ICT tools the active learning can be included in lecture series of various streams which make learning interesting for student. The active learning techniques include in this paper has been gathered from many sources. Further we have a lookup on different active learning strategies.



Multiple active learning strategies may be helpful for designing an active learning session. Not all techniques listed here will have universal demand, with factors such as instructor teaching style and personality influencing which choices may be right for a teacher. Some of the strategies are as follows:

1. **Think-Pair-Share:** Allow student to think individually about the question or idea(s) put forth by a teacher, Pair up with someone to discuss their thinking, and then Share their conversation with their group, and then finally with the whole class.

Firstly the teacher will explain a topic to student. Then teacher will ask student a question related to that topic. Give student some time for say 4 to 5 min to think on the given question. After think phase now ask student to pair answer with their neighbor ones, whether ideas/answer matches or not. Lastly share phase, i.e to share their ideas with whole class. Because of this the student is engaged in the class during the lecture and also teacher comes to know whether the topic taught to the student has understood or not.

2. **Polling:** This is students vote anonymously on what they perceive as the best explanation/answer to a question, followed by opportunities to discuss their ideas with peers, and then to vote again leads to greater learning of the material. It is important to have students discuss why they think their explanation is the most accurate and also why the other explanations proposed are not accurate. It is also important that the teacher looks at the polling results and listens to the reasoning of the students in order to determine what further explanations and summary might need to be made in lecture. There are various tools that can be used for polling, including Clickers, Socrative.com and Poll.Everywhere.com.

### 3. **Flipped Classroom**

Flipped Classroom is nothing but a student doing preparatory activity such as watching a video or reading some material outside the class and doing a lot of active learning on that material in the class. The class time is spent in assimilation rather than information transmission. Class time is spent in the higher cognitive levels of apply, analyze and create on the topic rather than low levels of recall and understand. The support of peers and the instructor is available to the student while they are working on these higher cognitive levels.

4. **Jigsaws:** In small group's student read information that has been organized into sections. Each student in the group reads one section of the material and then

shares that information with the rest of their group. As they read and share information, they refer to prompts such as: what do you think each idea means? What is the big idea? How can this idea be applied to help understand the concept(s)? What questions do you have about what you read? What do you agree/not agree with?

5. **Turn and Talk:** Ask peers to talk to each other about what they do and don't understand and/or share with each other what they wrote down in their notes about a particular concept just covered in lecture. Encourage students to add to their notes from the discussion.
6. **Brainstorm ideas:** There are many effective ways for students to create brainstorms of ideas. Working with pairs or in small groups tends to be effective because students stimulate each other's thought processes. Encouraging students to think out of the box and to delve into a topic using this technique often has unexpectedly positive results.
7. **Empty Outline through polling with think-pair-share:** Distribute a partially completed outline of today's lecture and ask students to fill it in. Useful at start or at end of class. This activity can be individually voting for a student or Students can vote in form a group what they identify by using think pair share.
8. **Fish Bowl:** In this technique, the instructor gives students index cards and asks them to write down one question concerning the course material. They should be directed, for example, to ask for clarification of some aspect of the material that they do not fully understand; or, perhaps, to ask about applying course material to practical contexts. At the end of the class (or at the beginning of the next class if the question is assigned for homework), students deposit their questions in a fish bowl. The instructor then draws several questions out of the bowl and asks the class to answer them. Instructors can edit the questions or skip ones that are not appropriate for what they are trying to accomplish. Then instructors can invite students whose questions were not selected to see them after class or during office hours to have their questions answered.

9. **Quiz/Test Questions:** By asking students to contribute exam questions, instructors encourage them to think more deeply about the course material, explore major themes, compare the different views presented, make applications, and demonstrate other higher order thinking skills. The students' questions may be used on exams, as the basis of review sessions, and as models of the most effective questions. Further, instructors may ask students to discuss the merits of the questions submitted. Students might discuss the relative merits of two different questions on the same material, including degree of difficulty, effectiveness in assessing learning, scope, and so forth.
10. **Crossword Puzzle:** Crossword is a quick and effective way to reinforce essential concepts and vocabulary. It provides students with an opportunity to think critically, collaborate, compete, recall and discuss salient concepts by using essential vocabulary associated with these concepts.

#### **ICT Teaching aids which can be applied on active learning strategy:**

Various ICT tools are available to increase the learning influence of student in their teaching learning. ICT tools such as MOODLE, Wikispace, Padlet etc. can be use in learning methodology of students. Mainly we will be explaining above as follows

1. **MOODLE** is a learning platform designed to provide educators, administrators and learners with a single robust, secure and integrated system to create personalized learning environments. MOODLE provides many features such as taking attendance were a transparency is maintained in between mentor and learner, quiz can be easily conducted, question bank, learning material can be easily shared and provided to the learner by mentor which is a paper less way. Active leaning strategy mentioned above can be easily implemented in MOODLE.
2. **Wikispaces** is an open classroom management platform where teachers and students can communicate and collaborate. Wikis support the diverse needs of the classroom, from project based learning, and event planning, to parent communication, and more.
3. **Padlet** (formerly Wall wisher) is a free application to create an online bulletin

board that you can use to display information for any topic. Easily create an account and build a new board. You can add images, links, videos, and more.

4. **Google Classroom** is a learning management system developed by Google for schools that aim to simplify creating, distributing and grading assignments in a paperless way. It boosts collaboration, and fosters seamless communication to make teaching more productive and meaningful.

### **Conclusion:**

Faculty should structure their courses to promote collaborative and cooperative environments. So to observe the change in student learning process further an practical research is going to be conduct. Will identify the topic in which active learning could be used in teaching learning process. In a class two groups are to be formed of student, one will be a group where anyone of the active learning strategy will be applied say it as GROUP A, another group will be active learning strategy will not be applied say it as GROUP B. Group A will be called as pilot study group. A analytical study will be applied for both group in further research work through ICT teaching learning process.

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