Active Learning Strategies

Active learning is the intentional inclusion of teaching strategies within a classroom setting that generate student activity and engagement in the learning process. The inclusion of active learning within a classroom has been found to enhance student retention of course material, improve thinking and writing abilities, enhance student attitudes towards learning, increase motivation for further study, and develop awareness of one’s approach to learning (Prince, 2004).

Many active learning strategies can be used to promote a learner-centred classroom and deep learning. Active learning strategies range from low-risk activities that are structured, have a low potential for controversy, and require relatively short periods of class time (e.g., think-pair-share) to high-risk activities (e.g., a role play demonstrating a concept from lecture). Provided below are four active learning strategies that can be implemented into a classroom of any size and in any discipline.

Think-Pair-Share

You ask a question or pose a problem and request that students think about it for a minute. Then students are asked to turn to the person next to them and share their thoughts. Think-pair-share gives students time for reflection and an opportunity to share their ideas. At the end of a few minutes, several pairs of students can be asked to share their thoughts with the entire class.

This technique:

a) allows students to clarify unclear points with a classmate
b) provides you with feedback on the students’ understanding of a topic
c) gives students time to consolidate their learning
d) provides an opportunity for analytic thinking
e) allows an opportunity for lecture material to be applied to a problem that is relevant to students
f) encourages shy students to share their ideas
g) fosters a positive class environment through the exchange of ideas

Reflection and/or Active Experimentation

With this technique you interrupt the lecture and ask students to take a minute to write their ideas or solution to a problem on a sheet of paper. You then collect these sheets as the students leave the classroom and use them to assess student learning.

Options: After students have had time to write their solution, you can take a few minutes to model the thinking process for solving the problem. While there is no one correct way to think about a problem, this thinking out loud is very valuable as a modeling process that allows students to observe how an expert thinks. By hearing your thinking process, students learn to think effectively themselves.

Or: Students can be asked to write a one-minute paper at the end of class listing the class ideas or concepts they think they understand and which ones they would like explained again. Used this way, student responses to the one-minute papers can provide you with feedback on where to start the next class.
Reading Summaries
You start the class by asking students to summarize the key points in the assigned reading for the day. After the students present these points, you elaborate, restate difficult terms or concepts, answer questions, add details, and provide applications. The student summary gives students the opportunity to get involved at the start of the class, gives you feedback on the students’ understanding of the readings, and encourages you to focus on the material that students are struggling with.

After the key points from the readings are summarized, students can be asked to provide applications of the concepts or ideas. This continues student involvement and helps them reflect on the relevance of the course material to other courses or applications.

End of Class Summaries
Individual students or small groups are asked to summarize the three or four main points from the lecture they just heard. These summaries can be written in the last few minutes of class and handed in before students leave, or they can be completed outside of class time and handed in at the start of the next class. You can gain valuable feedback on what students learned from the lecture. This exercise may indicate that students do not always leave the class understanding the key concepts or ideas that they were intended to learn.

For further discussion regarding these techniques or any other active learning strategies please contact members of the Educational Development team.

Resources