

Active Learning Strategies

The Joint Accreditation requires that active learning strategies are incorporated into Certified Continuing Education. Didactic lectures only with Q&A are no longer accepted methods of delivery. Please see below for tools and tips in how to make your continuing educational activity more learner-centric and engaging for your participants.

- Click here for some internet tools that can be used to incorporate into your curriculum design:
- [Ideaboardz](#)
- [Liberating Structures](#)
- [Mentimeter](#)
- [Kahoots](#)
- [Poll Everywhere](#)
- [Sli Do](#)
- [Kudo Board](#)
- Zoom - Interactive tools embedded into Zoom including stamps, whiteboard, breakout rooms, chat feature, and polling. For an instructional guide to incorporating more interactivity into your Zoom education click [here](#)

Lectures are a convenient way to disseminate material in a standardized fashion to audiences of various sizes. But before you use this approach for your educational activity, consider these points:

1. **Traditional lectures using a Powerpoint bullet-point approach encourage passive learning at the lowest level of cognitive function** and provide for a low rate of knowledge retention.
2. **Learners cannot pay attention continuously during a 50-minute lecture.** Attention alternates between engagement and non-engagement with attention lapses beginning as early as the first minute and recurring in cycles that progressively shorter as the activity progresses.
3. **Attention is higher during non-lecture methods/active learning techniques** such as demonstrations, audience participation questions, and learner discussions, and there is a carryover effect of the benefit of such learner-centered techniques into subsequent lecture segments.

4. Relative to a traditional lecture format, **active learning strategies improve knowledge retention, learner attitudes, and likelihood of a change in behavior.**

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Rao, S. P., & DiCarlo, S. E. (2001). Active learning of respiratory physiology improves performance on respiratory physiology examinations. *Advances in physiology education*, 25(2), 55-61.

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Here are some active learning strategies that can be incorporated into educational activities to improve attention and engagement:

- **Group problem solving.** Present a conceptual problem or case to be discussed by groups of learners. Give them ~5 minutes to work on the problem, during which time you walk around the room, monitoring progress. Randomly call on a group or two to report on their results/explanation. (*Works in the virtual classroom.*)
- **Audience participation questions.** These can be used to poll attitudes, as a pre-test at the beginning of a session, sprinkled throughout the session, or as a post-test at the end of the session. (*Works in the virtual classroom.*)
- **“Think-pair-share” with a neighbor.** What these collaborative techniques have in common is that an often open-ended question is posed to the group and each learner is given ~1 minute to think about the question before pairing with a neighbor to discuss their ideas for a couple minutes, then the pairs share their answer with the rest of the group via solicitation of comments or a vote.
 - Open-ended question: Pose a question that requires reflection on material presented rather than simple recall.
 - Sentence starter/fill in the blank: Present a sentence that needs completion in order to reflect an accurate statement. Ask learners to complete the

sentence, then compare answer with a neighbor. Best if sentence starter requires reflection that goes beyond recall to levels of application or analysis.

- Compare or contrast: Identify 2 important parallel elements from the lesson and ask learners to identify similarities and differences.
 - What's your diagnosis? Present a case vignette or short video and ask learners to provide a diagnosis, identify an error in care, etc.
 - Re-order steps: Present a series of steps in mixed order and ask learners to re-order them to the correct sequence.
 - Paraphrase an idea: Present an idea and ask learners to rephrase it using their own words.
 - Support a statement: Create a statement for which learners must provide supporting evidence.
 - Reach a conclusion: Present facts or opinions, asking learners to make a logical inference. Such statements may result in multiple correct responses.
- **Role playing.** Used to demonstrate how to elicit symptoms, perform exam techniques, explain a procedure or meaning of test results or a diagnosis, provide feedback to learners, or perform a handoff.
 - **Simulation.** Great for team education.
 - **Case presentations.** (*Works in the virtual classroom.*)
 - **Interactive games.** Use game show format to review material and assess ability to apply information. A little fun competition can be motivating, particularly if you let people work together. (*Works in the virtual classroom.*)
 - **Debate.** Can be formal with preparatory work or informal with learners asked on the spot to provide an argument on the pro or con side. Would work for controversial concepts, opinion, or factual material. (*Works in the virtual classroom.*)