



VCU

Center for Teaching and Learning Excellence

Active Learning

What is active learning?

Active learning techniques combine traditional lecture format with activities that encourage learners to participate, get involved, and think about what they are doing. Active learning helps students construct deeper knowledge and understanding by:

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- Enabling learners' progression toward the higher levels of Bloom's Taxonomy, moving from remembering and understanding to analyzing and creating.
- Engaging individuals' unique experiences and perspectives by building out ideas with peers.
- Enriching understanding and building connections to what students already know.
- Enhancing students' ability to transfer knowledge and skills across different contexts.
- Encouraging development of metacognitive skills ("thinking about thinking").

How is active learning implemented in the classroom?

To facilitate active learning, instructors should "have students do something other than taking notes or following directions...they participate in activities...[to] construct new knowledge and build new...skills" (Handelsman et al., 2007). While lectures are valuable, they rely heavily on learners listening passively to an expert. In contrast, active learning activities emphasize higher-order thinking and encourage students to construct knowledge (Freeman et al., 2014; Carr et al., 2015). By thinking about their own learning (i.e. metacognition) during activities, students make meaning from content. Active learning activities encourage students to:

- Consider their understanding of the lecture material.
- Develop ability to retrieve information from memory, learn subsequent material, and translate information to new domains (Brame & Biel, 2015).
- Articulate newly formed mental connections by explaining their answer and critically considering others' input (Angelo & Cross, 1993; Handelsman et al., 2007).

How can I develop my own active learning activities for the courses I teach?

- Start by identifying learning goals for the content. What do you want your learners to learn?
- Structure assessment of learning goals. How will you measure achievement of learning goals?
- Choose an active learning approach to help learners achieve goals. Which activities will be meaningful, challenging, and tied to your learning goals?

Other resources and tools for active learning:

- [Teaching in Higher Ed's Active Learning Resources](#)
- [Best Practices in Active Learning](#)
- [40 Active Learning Strategies for Active Students](#)
- [Five Key Principles of Active Learning](#)

Suggested Active Learning Activities

In-person courses: Start with short activities that pose low risk for both instructors and students, require limited change to your current instructional methods, and provide an opportunity for students to organize and clarify their thinking. Here are a few suggestions:

- **Think-Pair-Share:** Ask students a question that engages higher-order thinking skills (analysis, evaluation, and synthesis). Encourage students to think briefly about an answer, then discuss their responses with a peer. Share responses with the group and discuss.
- **3-2-1 Bridge:** After content delivery, ask students to come up with 3 words that describe their perception of the content, 2 questions they have about the content, and one simile or metaphor for how they understand the content. Share in pairs, or share with class.
- **Retrieval Practice:** After 15 minutes of lecture, pause for a few minutes and have students write everything they can remember from the previous segment. Encourage questions!
- **Compass Points:** Considering the idea you've proposed, ask students to briefly write answers to these: E = Excitements, what excites you about the idea; W = Worries, what do you find worrisome about this idea?; N = Needs, what else do you need to know or find out about this idea?; S: Suggestions, what would you suggest in regards to this idea.
- **Minute Papers:** Ask students a question that requires them to reflect on their learning or to engage in critical thinking, then write a brief response. Encourage students to share responses to stimulate discussion.
- **Chalk Talk:** On the board, write the central idea or theme. Ask students to add their ideas on the board by considering: What ideas come to mind when you consider this idea or problem? What connections can you make to others' responses? What connections arise as you think about the ideas and consider the responses and comments of others?
- **Crumple and Shoot:** Ask the class a question. In teams of 2-4, students write their "team answer" on a piece of paper. Each group that answers correctly has the chance to score a point by shooting their crumpled-up paper into a trash can. ([Full instructions - PDF](#))

Online courses: Active learning activities in online courses require careful planning and encouragement from the instructor. Examples of online activities that foster active learning include:

- **Discussion Forums:** These can be used to conduct peer discussions in an asynchronous format. Post a question or topic that students reply to, and encourage them to comment on one another's replies.
- **Virtual Chat/Video Conferencing:** This can be used as a way for you to interact with students via "virtual office hours," as well as for students to have group conversations in a synchronous (live) format. Tools such as G Chat, Facebook Messenger, Google Hangouts, Zoom, and Skype provide text-based and/or video-based interaction.
- **Blogs:** Using platforms such as RamPages, WordPress, and Blogger, students can create their own blogs where they can respond to prompts, ask questions, and develop projects.

Please feel free to contact the VCU Center for Teaching and Learning Excellence or your department for help and feedback as you design and implement active learning approaches.

Adapted from materials developed by Cynthia J. Brame, CFT Assistant Director, Vanderbilt University Center for Teaching (<https://cft.vanderbilt.edu/active-learning/>); Yale Center for Teaching and Learning (<https://ctl.yale.edu/ActiveLearning>); and University of Florida Center for Instructional Technology & Training (<http://citt.ufl.edu/online-teaching-resources/activelearning/active-vs-passive-learning-in-online-courses/>).