How to incorporate active learning strategies online

Quick reference guide

Oregon State University

What is active learning?

Active learning is when students do something related to instructional content and then reflect on their learning. Active learning has been shown to be more effective in helping students learn and retain new information than more passive kinds of learning experiences such as merely listening to a lecture or watching a video. Many educators incorporate active learning strategies in their classrooms, but when we shift to a remote or online environment, active learning can be challenging to implement.

To determine ways to incorporate active learning in distance learning environments, consider two questions:

1. How will the student interact with the content, other learners and/or the surrounding world?

2. And, what sort of reflection should the student do along with the activity?

Step 1: Get active

Especially in remote or online environments, it can be tempting to arrange a learning activity that requires students to access a resource -- to read something or watch a video, for example. Build on these more passive activities to make them active by adding a simple active component, such as having students do the following:

- Take notes, listing three main ideas plus one question

- Write a summary

- Write down the muddiest point and the clearest point

- Take an "X-ray" of the resource by identifying the skeleton (main idea or thesis), plus the muscles that make the idea move (the evidence and reasoning)

- Write an op-ed expressing an opposing or alternate view

Another way to encourage students to interact with course content is to ask them to get creative:

- Create an infographic that shows the main ideas (Piktochart and Canva are two free, easy-to-use tools)

- Create an image, slide or drawing that expresses a main idea or a point of view

- Write a poem or a song about a topic

- Create a "fakebook" profile for a historical figure or fictional character

- Create a music playlist that expresses a point of view about a topic

For some disciplines and topics of study, asking students to engage with the world around them can also be an effective way to encourage active learning:

- Conduct observations or experiments with household or backyard materials

- Grow a plant or flower from a seed, or conduct an observation of a plant in the student's vicinity

- Ask students to monitor aspects of weather and convey information collected using graphs and charts, perhaps drawing inferences from observations

Yet another way to encourage active learning is to ask students to engage with peers, such as in a learning management system like Canvas or Google Classroom; via student-student web conference, Skype or phone; or with a collaborative document such as Google Docs or Slides. Students might do any of the following:

- Collaborate on a mind map

- Conduct peer reviews of project or paper drafts

- Practice role-playing in a web conference setting or in writing via email or discussion board
- Ask students to give a group presentation with web conferencing, or with video segments presented together in sequence

So many active learning possibilities are available. Use your imagination and the resources your students have available to them, many of which may be away from their computer screens.

Step 2: Reflect

Remember: Meaningful activity + reflection = active learning.

For active learning to be implemented fully, students need to complete a meaningful action, as in the examples above, *but they also need to perform some sort of reflection about their learning*. It can be helpful to note that "reflection" can mean more than one thing, so be sure to provide students with direction about what kind of reflection you are requesting, specifically. Here are a few easy ways to guide student reflection:

- Invite students to share:
  - one thing they feel most confident about and why
  - one thing they struggled with and how they overcame it or how they plan to
  - one thing they still don't fully grasp
  - one most helpful resource from the week/lesson/etc.
  - one resource they wish they had during the last week/lesson/etc.
- Use Grossman's Continuum of Reflection as a guide:
  - Content-based reflection, where you ask students to provide evidence and make inferences
  - Metacognitive reflection, where you ask students to think about their thinking, e.g. noting differences between thoughts and feelings
  - Self-authorship reflection, where students gain distance from earlier thinking and are asked about how feelings and thoughts influence each other
  - Transformative and intensive reflection, where students are asked to note how their feelings and thoughts have changed over time
- Use Ryan's Levels of Reflection as a guide:
  - Reporting and responding, where students observe, provide evidence, ask questions and state opinions
  - Relating, where they make connections between content and prior learning or previous personal experience
  - Reasoning, where students analyze content, including discussions of relevant research
  - Reconstructing, where students imagine future applications, such as in professional contexts