Spaces for Active Learning

- Laptop for Each Group
- Shared Displays
- Power
- Acoustic Panels
- Student Whiteboards
- Ample Space Between Groups
- Group Seating Layout

Photo by Will Alvarez/UCI
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Tools for Active Learning

Active Learning ≠ technology-focused learning

It’s about the practices, not the tech. That said, there are many tools that may facilitate active learning methodologies, such as:

- Audience response systems (e.g. iClicker, Poll Everywhere, Kahoot!, Zeetings)
- Learning management systems (e.g. Canvas)
- Furniture & physical infrastructure (e.g. movable tablet-arm chairs, lecture halls with two rows of seat per level, spaces designed for collaboration)
- Audio / video tools (e.g. video conferencing)
- Augmented / virtual reality
Strategies for Active Learning

Think-Pair-Share

How it works

In response to a prompt, students think gather their own thoughts, discuss with a partner, and then some or all pairs share out with the class

Requires students to recall and process information individually and then elaborate on that information with peers

How to implement it

Develop a prompt around a key concept that students may already know or are trying to learn

Pace students so that they spend an appropriate amount of time in each step

Consider requiring students to write down their thoughts or respond using an iClicker or similar app
Teaching & Learning Spaces for Active Learning

- Wider Aisle and Seat Spacing
- Wireless Projection
- Power
- Swiveling Seats
- Acoustic Panels
- Larger Work Surfaces
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Photo by Steve Zylius/UCI
Strategies for Active Learning

10/2

How it works

Interactive lecture method that involves 10 minutes of lecture followed by 2 minutes of activity or discussion.

Helps keep students focused and provides opportunities to check their understanding and answer questions.

How to implement it

Design 2 minute breaks based on the purpose of your lecture. Lots of content? Ask students to summarize what you’ve gone over so far.

Complex theories or concepts? Have students explain them in their own words to partner.
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Collaborative Quizzes

How it works

Students take quizzes in small groups where they must reach consensus on the answers.

Designed to promote critical thinking through group discussions of quiz material.

How to implement it

Put students in groups of 4-5 with one answer sheet for the exam. Can also be done on Canvas or using scratch cards.

Consider giving more than one opportunity to answer so students can correct mistakes in real time.
Mind Maps / Graphic Organizers

How it works

Students create a diagram of the concepts and relationships for a given topic.

Functions as both a learning tool and assessment.

The student and instructor both see how the student organizes and classifies information, providing opportunities to address misunderstandings.

How to implement it

Provide students with a prompt and give them time work individually or in group.

Coach students on an appropriate structure (e.g., hierarchy, flowchart) and/or provide partial map.

Emphasize that there are different ways to organize information and it may change with time and development of expertise.
Spaces for Active Learning

- Flexible Seating Layouts
- Wireless Projection
- Student Whiteboards
- Extra Space Per Student
AntCAVE Collaboration Rooms

Photo by Will Alvarez/UCI
Case Studies

How it works

Students are given a case study to work through in a class or across multiple classes.

Gives students an opportunity to apply their knowledge to an authentic situation and discuss possible approaches and outcomes with peers and instructor.

How to implement it

Select a case study appropriate for the students’ level and prior knowledge and experience.

Progressively reveal the case study, giving students time to assess information, make predictions, and suggest actions during each step.

Model processes and reasoning by thinking aloud about how you would approach this case.
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Strategies for Active Learning

Reciprocal Teaching

How it works

Students explain/teach a concept or summarize important points from a reading to peers.

Requires students to synthesize information and then teach it which requires deep understanding.

How to implement it

Jigsaw - a method where a reading is split up into sections. In groups, each student is assigned a difference section to become an “expert” on.

Students are then responsible for teaching that section to the rest of their group.
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## Strategies for Active Learning

### Reflective Writing

**How it works**

Students spend a few minutes reflecting on materials, lectures, concepts, or problems in short writing assignments.

Supports knowledge acquisition and recall and exposes gaps in knowledge.

**How to implement it**

At the beginning of class, have students write for five minutes about their homework - give them a prompt to get them started.

At the end of class, have students put away their notes and write about what they can recall and what they still have questions about.
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