Active Learning

Facilitation & Engagement

Active learning strategies allow learners to engage deeply in the learning process. By encouraging higher order thinking skills like application, synthesis and analysis, active learning strategies help learners understand, apply and transfer knowledge effectively. Compatible with any delivery method, these activities are useable for any class size. Examples are:

QUESTIONS

Questions turn learners into active participants. You can also get a sense of their interest and comprehension.

PRO AND CON GRID

The Pro and Con Grid lists advantages and disadvantages of an issue and helps students develop analytical and evaluative skills. It encourages students to go beyond their initial reactions and search for at least two sides to the issue.

BRAINSTORMING

Students generate ideas based on a prompt. The main rules of brainstorming are to acknowledge every offering by writing it down and save any critiquing until after the idea generation time is over.

FORMATIVE (UNGRADED) QUIZZES

Introducing ungraded quizzes during a lecture or session can help the instructor gauge learner understanding of the material, and help the learner reflect on their learning process and where they need to improve.

THINK-PAIR-SHARING

In its simplest form, students think about a particular question or scenario then they pair up to discuss their ideas. They then share their results in a large class discussion.

ONE-MINUTE PAPERS or SHORT WRITES

End your class with short writing assignments to assess the degree to which learners understand presented material. This will give you some insights as to how you might need to modify the content for your next class.

PROBLEM SOLVING: DEMONSTRATIONS, PROOFS and STORIES

Begin a lecture with a question, a paradox, an enigma, or a compelling, unfinished human story. Refer to the problem throughout the lecture, inviting learners to fill in imaginative spaces in the story (or model) with their own solutions.

MODELING ANALYTICAL SKILLS

View and analyze passages of text, paintings, sonatas, graphs, charts, artifacts, etc. together with your students.

DEBATES

Add a participatory dimension to your lecture without compromising your control of the class. Divide the class in half and invite arguments from the two sides.

ROLE PLAYING

Give a mini-lecture to establish the context and setting for the role playing. Then divide the class into a number of small groups of varying sizes (if you have a large class, you may have to assign duplicate roles). Each group is assigned a clearly defined role and given a specific, concrete task – usually to propose a position and course of action.



Activity 1: Questions

TIME REQUIREMENT: Varies

SPECIAL FEATURES: Questions are the simplest form of an interactive teaching tool. They are useful in any discipline. They can help make students active learners and gauge their level of interest and comprehension.

PROCEDURE:

- Develop key questions before class. They won't occur to you on the spot.
- Decide when you're going to ask them. Thinking ahead also allows you to plan your time.
- Ask questions that can be answered, but favour open-ended questions over yes/no questions.
- Vary the form and level of the questions. Questions that have multiple correct answer or that rely only on general knowledge are good for encouraging participation. More complex questions can be used to gauge student knowledge.
- Ask only one question at a time or you will confuse the students.
- Pause between asking and accepting replies (pausing gives students a chance to think of an answer, and by not asking the first person who raises his/her hand, you encourage quieter students to participate).
- Acknowledge all answers thank students for participating, repeat their comments so the class can hear and/or write them down so that they are visible.
- Keep the whole class involved in the question and answer exchange. Move around the room when trying to elicit participation. When responding to a student question or comment, split your attention so that you are focused on the class in general 75% of the time and the student speaking 25% of the time.

FUNCTION IN THE CLASS: Questions are integral to the success of discussion groups. They can also be the organizing principle behind a tutorial or lecture. During lectures, ask questions early on to stimulate interest and gauge students' level of knowledge; in the middle, to break the pace of the lecture; and/or at the end, to review main ideas and gather ideas for future classes.

Activity 2: Pro and Con Grid

TIME REQUIREMENT: 15-20 minutes

SPECIAL FEATURES: This technique helps students develop analytical and evaluative skills, and encourages them to go beyond initial reactions to complex issues. It can be used in any discipline: students can evaluate the pros and cons of a procedure, technique, conclusion, action of a fictional character, political decision, etc.

PROCEDURE:

- Divide students into small groups, if necessary.
- Specify how many pros and cons you'd like each individual or group to develop.
- Allow five to ten minutes for discussion or silent thought.
- Ask for input: write pros on one side of the board and cons on the other side.
- Combine pros and cons that are very similar, and count the number of times they recur to show their perceived importance.

FUNCTION IN THE CLASS: Consider using the pros and cons as the basis for a debate or for a discussion/lecture structured around the evaluation of course material.



Activity 3: Ungraded Quiz

TIME REQUIREMENT: 5-10 minutes

SPECIAL FEATURES: An ungraded quiz encourages students to pay attention during lectures by presenting them with a short-term, non-threatening learning objective. It can be done very quickly, and also provides you with a source of candid feedback on students' knowledge level.

PROCEDURE:

- Present question(s) on a slide, or handout
- Give students five to ten minutes to respond on a blank sheet of paper (depending on the atmosphere in the class, you may keep the quiz anonymous or ask students to put their names on papers)
- Collect papers and report on responses next time the class meets
- One variation: Prepare multiple-choice answer options and present each one in turn, asking for a show of hands
- Another variation: Before (or instead of) collecting quiz papers, have students exchange and "grade" each other's quiz papers based on the answers you present. This grading is to allow students to provide the students with timely feedback so that they can gauge their understanding and should not be used as a formal assessment.

FUNCTION IN THE CLASS: Use ungraded guizzes at the beginning of a lecture to determine the level of knowledge, or at the end of a lecture as a review and incentive for students to retain. Alternatively, use an ungraded quiz at the end of a lecture to gauge how successful you've been in teaching the material.

Activity 4: One Minute Paper

TIME REQUIREMENT: 3-5 minutes

SPECIAL FEATURES: The one-minute paper and the ungraded quiz that follows are both examples of ungraded, written, in-class activities. These activities are a flexible way to acquire candid feedback on the course material and your presentation style. The one-minute paper can be done especially quickly and it shows students that they can write quickly and spontaneously, and enhances general writing ability.

PROCEDURE:

- Give a prompt for the paper such as "what was the most important concept of this lecture?" or "what was the muddiest point of this lecture?"
- Give students one or two minutes to think about the topic without writing anything.
- Give students a short period of time (1 minute?) to write as much as they can.
- Collect papers (depending on the class atmosphere and the types of questions used, you may ask students to put their names on them but generally these ungraded assignments are left anonymous to encourage open responses to the questions.)

FUNCTION IN THE CLASS: Assign one-minute papers at the end of a indicator of comprehension, provide general writing practice, and give students an incentive to absorb and comprehend course material. Consider using the content of one-minute papers to plan content of upcoming classes: when students see that the instructor responds to their concerns, confusions, and questions in future classes, they will be motivated to participate.



Activity 5: MODELING ANALYTICAL SKILLS

TIME REQUIREMENT: 30-50 minutes

SPECIAL FEATURES: This technique helps students develop their analytical skills in any field by observing your analytical skills in action.

PROCEDURE:

- Select a document (a short review, proof, chart, abstract from an article, news item, etc.) to analyze as an example.
- Make enough copies of a similar document to distribute to all class members or to small groups (depending on your preference).
- Perform an analysis of your document in front of the class, making clear the procedure you use to reach your assertions, and using visual aids and supplementary material as necessary.
- Give students five to ten minutes to analyze their document: the conclusions they reach will be their own, but they will have learned rigour and analytical skills from you.
- Depending on class size, have students (or representatives from small groups) present their analysis, and respond to each one.

FUNCTION IN THE CLASS: An entire 50-minute tutorial or lecture can be structured around this exercise. Consider leading into the exercise with a mini-lecture on the type of document you and your students will be analyzing.

Activity 6: Debate

TIME REQUIREMENT: 15-25 minutes

SPECIAL FEATURES: The information below refers to an informal debate (i.e., debating as a method of class discussion). A debate is a good way to encourage class participation in large groups without losing control, and they can work in any discipline. Instructors can plan debates beforehand, or they can emerge naturally from classroom material.

PROCEDURE:

- Describe the background context, and explain why you are having a debate.
- Consider establishing ground rules for the discussion (ex. Disagreements are welcome, name calling and interruptions are not).
- Decide on the two (or more) sides to the debate.
- Physically group the class according to points of view: either assign students a point of view depending on where
 they sit, or ask people who want to argue each point of view to move to sit together.
- Invite someone from one side to begin the debate by stating his/her point of view.
- Invite someone from the other side to state the opposite point of view.
 Open the floor to comments that question or expand on the issues that were raised.
- For large groups, you may want to have speakers raise their hands while you moderate, but for small groups, anyone can speak up.
- The debate will probably start slowly at first, but the intensity should pick up as the students become more comfortable with the new style of in-class interaction.
- You, as moderator, can ask provocative questions, but don't express judgment on any point of view or students will hesitate to bring out new ideas for fear of being embarrassed.
- After 10 to 15 minutes of debating, end the debate.

FUNCTION IN THE CLASS: Use ideas and conflicts from the debate to lead into your presentation of course material.

TIME REQUIREMENT: 20-30 minutes

SPECIAL FEATURES: Role-plays can be used to allow students to experiment with different styles of interaction, practice new communication techniques or explore complex issues. They are generally used in classes dealing with social issues (social sciences, management sciences, etc.) or communication strategies (interviewing techniques, conflict management, etc.). If possible, participate in a role-play yourself before trying one in class. Essentially, a role-play is a form of interactive case study where the experience of participating in the role-play is the basis for further discussion.

PROCEDURE:

- Get scenarios and characters for role-plays from news stories, history books, generic business situations, or by writing them yourself from scratch.
- Explain why you are using a role-play to cover course material.
- Describe the background context or setting to the role-play.
- Give roles to "players": hand them a card with a brief description of the character they're playing, their point of view, characteristics, etc.
- For groups with more students than possible roles, you can either assign "observer" tasks to non-players (e.g., taking notes on a particular player), or assign identical roles to sub-groups of students (e.g., one student can play a city council member, and a sub-group of four or five students can play a homeowners' coalition).
- Ask for volunteers for certain roles or observers: you may use this as one way to allot bonus points to students.
- Allow a few minutes for students to prepare for their roles.
- After 10-15 minutes, end the role-play.

FUNCTION IN THE CLASS: Debrief and discuss the role-play. Use players' perceptions and observers' notes to lead into discussion of course material. Pay special attention to conflicts, ambiguities, etc.

Activity 8: Case Study

TIME REQUIREMENT: 20-50 minutes

SPECIAL FEATURES: Using a simplified case-study method for teaching in many disciplines helps bridge theory to practice. Source material can demonstrate the applicability of the course material to industry. A good case study:

- Presents students with a situation they can relate to from their own life experience.
- Includes realistic information. Examples can include scripts of exchanges that took place between key parties, news articles about situations of interest, background information about the organization of interest, etc.
- Has a conflict that students can resolve.

PROCEDURE:

- Get source material (short story, news articles, account of a decision or procedure, video, role-play script, etc.) to use as the basis for the case study.
- Provide students with a focus or framework to use in doing their analysis.
- Give students time to analyze the case individually or in groups, and to write down their analysis.
- Begin a discussion of students' analyses.
- Act as a mediator of the discussion. Don't offer your own opinion except to provide guidance on the process (remind students of the framework if discussion becomes unfocused).
- After analysis has been completed, show how the case study illustrates application of theoretical or background concepts in course material.

FUNCTION IN THE CLASS: Use a case study to lead into a discussion or lecture of course material, showing its relevance by referring back to the case study.



Activity 9: Quescussion

TIME REQUIREMENT: 20-30 minutes

SPECIAL FEATURES: Quescussion, as the name indicates, is a type of discussion that is conducted entirely in the form of questions (think Alex Trebek). The professor asks a question or makes a statement to the class (this question should be projected on the screen).

PROCEDURE:

- Discussion has to be in question form (No statements!)
- A person may speak only every 7th time. (You determine the number based on the size of the group)
- No fake questions (i.e., a statement disguised as a question. For example, "small classes are better than large ones, aren't they?").
- No ad hominems: an attack on someone else (i.e., "you would have to be crazy to think that, wouldn't you?" this is also a disguised statement)
- If someone makes a statement, the rest of the class is to shout "Statement"
- The exercise is self-policing

FUNCTION IN THE CLASS: The quescussion can be an effective when to generate discussion and learning and to determine what levels of understanding on a specific topic. It can also be used to help determine topics to cover in subsequent lectures. By framing the discussion into questions, students feel less intimidated to speak in front of the large class. The rule of speaking every # of time generates a variety of voices and allows for reflection while waiting for a turn to speak.



Opportunities for Student Feedback

STUDENT LIAISON COMMITTEE ("Ombuddies")

"Ombuddies" or the student liaison committee can be an excellent way of getting feedback from large classes in particular. With this tool, a group of student volunteers act as a liaison between you and the class. The group can meet independently on a regular basis and then periodically meet with you to provide you with the feedback they have collected from their classmates. Or, this can be less formal, with the students simply reporting to you questions or concerns as they arise. The class should always know who the volunteers are and should receive regular reports from the "ombuddies" and/or you. There are two components that make this activity work:

- Provide the volunteers with some guidance about how to function as a committee and how to solicit and collect feedback from their peers.
- Students should know one another. Ombuddies should be used in highly structured programs or upper-year classes where students are going to be familiar with each other. If a student is reluctant to talk to you about an issue, they will most likely be apprehensive about talking to a fellow student who is a total stranger.

SUGGESTION BOX

This tool could involve bringing a suggestion box to your classroom every class or hanging an envelope on your office door. Students can use this method to provide you with anonymous suggestions regarding your teaching or the course in general.

- Be sure to tell students about what types of suggestions you would like: the more open you are, the more unfocussed the suggestions will be.
- Scan the suggestions regularly to put them into context, summarize them for the class, and indicate which ones you will act on and why.
- Keep in mind that students who write their suggestions by hand may not be totally honest since you may recognize their writing. Encourage students to submit printed suggestions if they are concerned.



References

- Angelo, T., & Cross, K. (1993). *Classroom assessment techniques: a handbook for college teachers* (2nd ed.). Jossey-Bass Publishers.
- Bean, J.C. (1996). Engaging Ideas: The Professor's Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom. Jossey-Bass Publishers.
- Davis, B. (2009). *Tools for teaching* (2nd ed.). Jossey-Bass Publishers.
- Frederick, P. (1986). The Lively Lecture—8 Variations. *College Teaching*, *34*(2), 43–50. https://doi.org/10.1080/87567555.1986.9926766
- Gedalof, A. (1998). *Teaching large classes*. Office of Instructional Development and Technology, Dalhousie University.
- Kent, M., Gilbertson, D., & Hunt, C. (1997). Fieldwork in geography teaching: A critical review of the literature and approaches. *Journal of Geography in Higher Education*, *21*(3), 313–332. https://doi.org/10.1080/03098269708725439
- Newble, D., & Cannon, R. (1989). A Handbook for Teachers in Universities and Colleges: A Guide to Improving Teaching Methods. Kogan Page.
- Prégent, R. (2000). Charting your course : how to prepare to teach more effectively. Atwood Pub.
- Prichard, K., & Sawyer, R. (Eds.). (1994). Handbook of college teaching: theory and applications. Greenwood Press.
- Stonehall, L. (1991). How to Write Training Manuals. Pfeiffer.