Interactive Classroom Activities
Fundamentals: Teaching + Learning Workshop Series

Students learn through their participation in the attainment of knowledge by gathering information and processing it by solving problems and articulating what they've discovered. Each activity below provides students with opportunities to deepen their learning by applying concepts and articulating new knowledge and many of these activities also provide the instructor feedback about the students’ learning.

Entry / Exit Ticket
Entry & Exit tickets are short prompts that provide instructors with a quick student diagnostic. These exercises can be collected on 3”x5” cards, small pieces of paper, or online through a survey or course management system.

- **Entry tickets** focus student attention on the day’s topic or ask students to recall background knowledge relevant to the day’s lesson: e.g., “Based on the readings for class today, what is your understanding of __________?”

- **Exit tickets** collect feedback on students’ understanding at the end of a class and provide the students with an opportunity to reflect on what they have learned. They can be helpful in prompting the student to begin to synthesize and integrate the information gained during a class period. For example, a muddiest point prompt: “What was the muddiest point in today’s class?” or “What questions do you still have about today’s lecture?”.

Advantages of entrance and exit tickets include: participation of each student, prompt for students to focus on key concepts and ideas, a high return of information for the amount of time invested, important feedback for the instructor that can be useful to guide teaching decisions (e.g., course pacing, quick clarification of small misunderstandings, identification of student interests and questions).

Free Writing / Minute Paper / Question of the Day exercise
These are activities that prompt students to write a response to an open question and can be done at any time during a class. Writing activities are usually 1-2 minutes, and can focus on key questions & ideas or ask students to make predictions. These activities give students the opportunity to organize their own thoughts, or can be collected by the teacher to gain feedback from the students. Advantages include developing the student’s abilities to think holistically and critically, and improving their writing skills.

Ice Breakers
Ice Breakers are low-stakes activities that get students to interact and talk to each other, and encourage subsequent classroom interactions. They can be useful at the beginning of the semester, for example asking students to introduce themselves to each other and what they would like to learn in the course. Advantages of icebreakers include: participation of each student, the creation of a sense of community and focusing students’ attention on material that will be covered during the class period.
Think – Pair – Share
This type of activity first asks students to consider a question on their own, and then provides an opportunity for students to discuss it in pairs, and finally together with the whole class. The success of these activities depend on the nature of the questions posed. This activity works ideally with questions to encourage deeper thinking, problem-solving, and/or critical analysis. The group discussions are critical as they allow students to articulate their thought processes. The procedure is as follows:
1. Pose a question, usually by writing it on the board or projecting it.
2. Have students consider the question on their own (1 – 2 min).
3. Then allow the students form groups of 2-3 people.
4. Next, have students discuss the question with their partner and share their ideas and/or contrasting opinions (3 min).
5. Re-group as a whole class and solicit responses from some or all of the pairs (3 min).
Advantages of the think-pair-share include the engagement of all students in the classroom (particularly the opportunity to give voice to quieter students who might have difficulty sharing in a larger group), quick feedback for the instructor (e.g., the revelation of student misconceptions), encouragement and support for higher levels of thinking of the students.

Case Studies and Problem-Based Learning
Case studies are scenarios that apply concepts learned in class to a “real-life” situation. They are usually presented in narrative form and often involve problem-solving, links to course readings or source materials, and discussions by groups of students, or the entire class. Usually, case studies are most effective if they are presented sequentially, so that students receive additional information as the case unfolds, and can continue to analyze or critique the situation/problem.

Guiding questions lead students through the activity. The questions should be designed to develop student’s critical thinking by asking students to distinguish between fact and assumptions, and critically analyze both the process they take in solving the case study as well as the solution itself. Example questions include:
- What is the situation? What questions do you have?
- What problem(s) need to be solved? What are some solution strategies? Evaluate pros/cons and underlying assumptions of these strategies.
- What information do you need? Where/how could you find it?
- What criteria will you use to evaluate your solution?
There are many collections of case studies publically available in a variety of disciplines.

Problem-based learning activities are similar to case studies but usually focus on quantitative problems. In some cases the problems are designed to introduce the material as well as provide students with a deeper learning opportunity.

The advantages of problem-based learning activities and case studies include developing students problem solving and decision making skills, develop student’s critical thinking skills encouraging critical reflection and enabling the appreciation of ambiguity in situations.

Debate:
Engaging in collaborative discourse and argumentation enhances student’s conceptual understandings and refines their reasoning abilities. Stage a debate exploiting an arguable divide in the day’s materials. Give teams time to prepare, and then put them into argument with a team focused on representing an opposing viewpoint. Advantages include practice in using the language of the discipline and crafting evidence-based reasoning in their arguments.
Interview or Role Play
Members of the class take the part or perspective of historical figures, authors, or other characters and must interact from their perspective. Breakdown the role play into specific tasks to keep students organized and to structure them so that the content you want to cover is addressed. Preparation work can be assigned for outside of class, so clearly communicating your expectations is essential. Advantages include motivation to solve a problem or to resolve a conflict for the character, providing a new perspective through which students can explore or understand an issue and the development of skills, such as writing, leadership, coordination, collaboration and research.

Interactive Demonstrations
Interactive demonstrations can be used in lectures to demonstrate the application of a concept, a skill, or to act out a process. The exercise should not be passive; you should plan and structure your demonstration to incorporate opportunities for students to reflect and analyze the process.
1. Introduce the goal and description of the demonstration.
2. Have students think-pair-share (see above) to discuss what they predict may happen, or to analyze the situation at hand (“pre-demonstration” state or situation).
3. Conduct the demonstration.
4. Students discuss and analyze the outcome (either in pairs/small groups, or as a whole class), based on their initial predictions/interpretations.
Advantages of interactive demonstrations include novel visualizations of the material and allowing students to probe their own understanding by asking if they can predict the outcome of the demo. They are also a venue for providing applications of ideas or concepts.

Jigsaw
A Jigsaw is a cooperative active learning exercise where students are grouped into teams to solve a problem or analyze a reading. These can be done in one of two ways – either each team works on completing a different portion of the assignment and then contributes their knowledge to the class as a whole, or within each group, one student is assigned to a portion of the assignment (the Jigsaw comes from the bringing together the various ideas at the end of the activity to produce a solution to the problem). In a Jigsaw the activity must be divided into several equal parts, each of which is necessary to solving a problem, or answering a question. Example activities include implementing experiments, small research projects, analyzing and comparing datasets, and working with professional literature. The advantages of the Jigsaw include the ability to explore substantive problems or readings, the engagement of all students with the material and in the process of working together, learning from each other, and sharing and critical analyzing a diversity of ideas.

Resources from the Sheridan Center
The “Interactive Classroom Activities” page of the Center’s website can help you learn more about any of the topics above and see examples of how to implement them in your classroom: http://brown.edu/sheridan/teaching-learning/effective-classroom-practices/interactive-classroom-activities.