

Some Class Participation Techniques for Larger Classes

Different Kinds of Participation

There are ways of participating other than speaking in class. Coming to see an instructor during office hours, or attending an out-of-class lecture and writing a response paper are some examples. Teachers of large classes have found that student participation can be defined in terms of three kinds of interaction: student to professor, student to student, and student to material.

Student to Teacher:

- Students successfully interact with their professors by:
 - contributing often to class discussions,
 - going to office hours, or
 - sending emails. They become involved in what is happening at the time the class meets by asking for additional course content information, sharing a personal experience in relationship to the topic, or volunteering to demonstrate an activity.

Student to Student:

- Students can interact with one another by
 - discussing ideas in small groups,
 - helping one another during labs when the professor is busy with others.

Student to Material:

- Students successfully interact with their material by completing the assigned readings, reaction papers, case studies, and class activities.
- When working in small groups, it is helpful to have students keep written compilations/minutes of their discussions.

Techniques other instructors have used

- One instructor suggests having students "take a minute" to list ideas, steps, etc., noting that once students have something *written down*, it seems easier to engage students.
- Have an open question or polls section at some point during each class.
- Building expectations into the syllabus will help let the students know how important participation is.
- At a recent discussion, teachers agreed that the key to promoting interaction is patience. You must be willing to wait what seems like an eternity after posing a question. If no one responds after 30 seconds have passed, try rephrasing the question or asking students what they would need to know to answer the question.

- To promote interaction among students themselves, teachers of large classes agree that a good first step is to create smaller groups. Some students who will not interact in a class of 70 will participate if the group size is reduced to 7. One way to create smaller groups in class is to have students form 10-minute buzz groups or simply have them turn to a neighbor to introduce themselves and discuss a question or problem.
 - Christophe Bas (Electrical Engineering) breaks his students into small groups for a first-day quiz that tests their understanding of key concepts from the prerequisite course as well as common mistakes made by students in the previous semester. Then he asks groups to volunteer answers, which the rest of the class must defend (even if they disagree). Eventually, the correct answers emerge, but the point of the exercise is to break the ice and get students talking.
 - Bob Melton (Aerospace Engineering) contributes another activity: "Once or twice a week I ask students to divide up into pairs and give them a question to answer. This is usually in the last 10 minutes of class. Sometimes I ask the pairs to write a one-minute paper together, stating a key idea that they've learned that day; then they also have to pose a question for me. (I quickly review the exercise at the beginning of the next class and answer a few of these questions.) I assess their written responses using a rough scale of 1-3, but these scores do *not* count toward their final grades. I check the correlation between these scores and their test scores--it's usually rather high--and tell them this as a means of encouraging their participation in these exercises."
 - In *The Penn State Teacher*, John Lowe (Chemistry) offers the following technique: "Gotcha!": I tell the class at the beginning of the semester that I'm going to make a mistake each day, and whoever detects the mistake first and shouts "Gotcha!" gets a candy bar. This technique works well. In fact, I always carry a spare candy bar because sometimes students will catch me making an unintentional mistake in addition to the one I've planned. I especially like to use "Gotcha" when I've warned them about a common mistake. For example, we talk about solving problems and the necessity of balancing the equation in order to get the right answer. But it's very easy for students to work with an equation and not check first to see whether it's balanced. So I present a problem and then start to solve it without first balancing the equation. Some students will pick up on it, and the students who don't kick themselves because it's so obvious.

Excerpted from: *Large Class FAQ: Student Involvement/Participation*. Schreyer Institute for Teaching Excellence. www.schreyerinstitute.psu.edu 2007

Additional Techniques

Listening Teams

- 1) Give a short lecture or invite a guest to speak for 10-20 minutes.
- 2) Assign students to groups of 3-5.
- 3) Give each group a listening assignment to generate questions about one aspect of the presentation.
- 4) After the presentation, give students 5 minutes to organize and prioritize their questions.
- 5) Students ask their questions.

Buzz Sessions

- 1) Divide students into groups of 3-5.
- 2) With a time limit, have students answer a question, solve a problem, or come to some kind of conclusion.
- 3) Ask each group to report their results/conclusions to the rest of the class.
- 4) (optional) Ask students to write a short paper about their discussion.

Active Review

- 1) Summarize the lecture.
- 2) Ask students to review the structure of the lecture within the total framework of the class. They do this by reviewing their notes for 2-3 minutes to identify areas of confusion.
- 3) Students then ask questions of each other in pairs or small groups.

Quizzicals

- 1) After a presentation, ask students to work in pairs and ask each other questions about the presentation.
- 2) The questions should be based on the learning objectives given to students at the beginning of the course.

Pyramids

- 1) Give a problem and have students work on it individually.
- 2) Then have students work on the same problem in pairs, then quads to compare, refine, and revise their conclusions/solutions.

Source: Cyrs, Thomas E., 1994, *Essential Skills for College Teaching: An Instructional Systems Approach*, Third Edition. Center for Educational Development, New Mexico State University, Las Cruces.