

Interactive Teaching in Large Lectures

Objection A: “I can’t learn that many names.”

Anonymity is a major concern in large lecture hall classes. Although large lectures come with the daunting task of learning 100+ student names and faces, there are several solutions that can help an instructor learn at least a large portion of them.

Solutions

1. Require students to upload a picture to their Canvas profile or utilize the Photo Roster in Canvas so that you can learn names.
2. Use a seating chart – the Attendance tab in Canvas has an easy to use seating chart function that includes student pictures.
3. Ask students to create a (paper) folded nameplate to display on their desks.
4. Schedule mandatory office appointments the first few weeks of class so that you can introduce yourself, answer any student questions, and put a face with a name. During these meetings, you could record information or take notes for future reference.
5. Call on students, even if you don’t know their names. Ask students to give their names when you call on them and then use their names in your responses.
6. Use simple games to encourage students to speak up and introduce themselves. The reward can be the game itself or participation points.
7. As students turn in their first assignment or exam, take a few extra seconds to try to match a name to a face.
8. Arrive early and stay late after class and use the time to talk with individuals or small groups of students.
9. Schedule an extra weekly meeting or Coffee Chat that meets on the same day and time each week. The location can shift to different areas on campus or stay at the same coffee shop/location depending on your comfort level. Tell students that the point in the meeting is an opportunity for you to learn more about them and for them to have additional opportunities to learn and provide feedback. There is no extra credit involved; it is simply a meeting for interested parties.

Objection B: “Fixed seats make it hard to form groups.”

Problems associated with large lectures extend beyond the number of students enrolled to issues with the environment. Large lecture classes usually take place in large lecture halls that have stadium seating with fold down desktops or tables bolted to the floor. This creates an environment that makes group formation seem impossible, but there are ways to incorporate groups in large lectures.

Solutions

10. Instead of forming groups, use the “Turn-to-your-neighbor” approach. In this approach, the instructor poses a discussion question or problem and asks students to turn to their

neighbor to discuss or solve it. After allowing time for discussion, the instructor calls on pairs randomly to provide their answer. This method can be modified to fit any class size and any situation. Students do not have to move from their current seats and discussion can be guided.

11. Adapting to the physical environment – In order to do this, you need to:
 - a. provide each group with a space that becomes their home – this is important because having students know where they belong helps maintain order, having a home allows groups to develop an identity, and it provides groups with time to develop procedures for overcoming the limitations.
 - b. ensure that group members are able and willing to arrange themselves so that they can make eye contact with each other – ensuring eye contact helps with the development of the group as a team.
 - c. provide access to the group space for students and instructors – if the environment makes it impossible for you to reach each group, you could have each group make an appointment to come see you at the front of the room. Walk around the room as much as possible to allow for better observations so that you can discuss any problems you see with the group during their appointment. It is also a good idea to ask each group to determine ways that they can access you and you can access them.
 - d. have a set process for distributing and collecting materials – this process can take a significant amount of class time if it's not organized. One way to overcome this issue is to have team folders. These folders, with that day's handouts or assignments that need to be returned, can be passed out to a group member at the beginning of the activity. After the activity, students return the folders to you with their assignment inside. Another possibility is to electronically communicate with students. Utilizing programs like GoogleDocs and Dropbox easily allow group collaboration as well as an easy medium for you to provide feedback directly on the assignment. It would be easy to adapt the team folders to electronic communication as well.
12. Invite student groups or partners to present an assigned reading and lead the class discussion. Groups and partnerships can be formed based on those who want to present. Presenters can begin the discussion with questions you provide as a start. Although only a small number of students may have or take the opportunity to present, many more will participate when their peers lead the discussion.
13. Use “rows” instead of “groups” in the interactive techniques

Objection C: “It’s too hard to call attention back when it’s time to return to lecture.”

A high level of noise is not necessarily a bad thing. It can serve as a motivator for teams as they hear their peers working and a team builder because groups have to work together to be productive. However, in large groups it can become difficult to regain student attention.

Solutions

14. It is important for the instructor to develop and communicate ways to move students from group discussion to whole class discussion. A good way to deal with this is to establish a

signal. Regardless of the time it takes, it is important to wait for silence to insure student learning. Possible ways to restart attention include:

- Raising your hand
- Standing in one spot
- Dimming the lights
- Use an actual timer with a loud bell (or smartphone timer, if you have a microphone to catch the sound)
- Out-shouting the students for attention (not always the best choice). Variation: shout loudly “OK!” or “Let’s get started again!” and wait a few moments before speaking a regular (loud) voice.
- Saying “shhh!” loudly (or into the microphone)
- Simply start your lecture again, speaking softly. Those in the front will shush the others for you.
- The phrase “if you can hear me, clap once. [pause] If you can hear me, clap twice [pause] If you can hear me, clap three times.” (note: some students may be insulted by this one without careful contextualization the first time).
- Cut off the background music suddenly. This works especially well if you slowly increase volume toward the end of the work time but then turn it off all at once. The sudden absence of (loud) noise will catch their attention.

15. Provide students with an allotted amount of time to complete the group assignment and stick to it. It is easy to find an online stopwatch and some of them come with alarm settings. Set the timer to countdown and then project it on the screen in the front of the class. Instruct students to keep track of the time and when time is up they are to stop talking and face the front of the room.

Objection D: “Too many students; they will get off-task since I can’t watch all of them.”

During group work, it is easy for students to get off task. This is the case in large or small classes especially if the instructor spends time talking to each group.

Solutions

16. One solution for this problem is to let students get off task. You should be explicit in your expectations of student conduct during group work. If students choose to get off topic or not complete the assignment, then their grade will reflect that.
17. Another solution is to walk around the room as much as possible; get out from behind the lectern and walk up and down the aisles. Even if you cannot directly walk past or hear what students are talking about, your obvious observation of group work will make them feel like they should stay on task.

Objection E: “I can’t access the middle of the row by walking in there.”

Another problem associated with large lecture halls is the difficulty it presents for the instructor to move around the room and access students as they work individually, in pairs, or groups.

Solutions

18. Ask students to leave every other row empty. For example ask them to sit in rows 1, 3, 5, and so on. This allows you the opportunity to move around the room easily. If you have too

many students to skip every other row, then have them leave three or four rows of your choosing empty.

19. Another option is to have a target section for each lecture. The targeted section can be called on to answer questions, asked to summarize the reading, and participate in a role-play or simulation (whatever kind of activity you have planned for the day). The target can be a location in the room, gender, age, major, where they are from, or any number of other groups (sensitivity to stereotypes and prejudices should be applied). This allows you to make a connection with a small group of students during each class. If you cannot get to them physically due to environmental constraints, then you can access them by targeting their group. It would be just as easy to call on students by name. However, some students are not comfortable talking to the large group. By narrowing the size based on a group characteristic, then you not only gain the students attention, but you still allow students the opportunity to participate or not.
20. Climb over anyway. Even when students are in the middle of the row, it's possible to seek forgiveness and climb in.
21. Or, do not wander into rows but pay more attention to them when calling for volunteers, raised hands, or unwilling participants. Those on the aisles may be more likely to be paying attention anyway.

Objection F: “I have too much content to cover and no time for interactions.”

A pressing issue in both small and large classes is the amount of possible material to cover. Instructors regularly make decisions about what must be included, what should be included, and what would be good to include given the time frame. Even when a lot of material is intentionally left out of a syllabus in order to make it accomplishable in a semester, typically, there is still a large amount of material to work through in 15 weeks.

Solutions

22. One option for dealing with the amount of content one must teach is to make the students responsible for some of the material outside of class. You could provide them with links to videos that explain the information and assign it as reading or homework.
23. Taking that option further is to flip your classroom. In a flipped classroom, instructors require students to watch pre-recorded lectures online before class begins. This frees up class time for application, synthesis, and evaluation activities rather than dissemination of facts and concepts. This process can be applied to the entire course for the whole semester or to several days of the semester depending on the comfort level of the instructor.
24. Another option is to read through your syllabus and mark everything as essential or helpful. Remove all the helpful information and place it under a suggested further reading list. If you mark everything as essential, ask a colleague to mark your syllabus the same way.
25. Make sure that you have clear and measurable learning goals and outcomes. Only include in your syllabus the content that helps reach the goals and outcomes of the course.

26. Accept that group interactions may, in fact, take longer than if it were a small class. In some cases, the additional time is nonetheless worth the effort and loss of “coverage” of material.

Objection G: “Students can’t hear other students; they aren’t loud like me (or lack the microphone).”

Solutions

27. This is another place that asking students to turn to their neighbor to discuss a question would be useful. See above.
28. In the event that forming groups or pairs really doesn’t work for you and the environment makes it especially difficult for students to hear each other, you can get students involved by calling for a vote. Ask students for a show of hands for questions like how many believe this or how many agree with this position. Select a student from each side and ask them to justify their response. The polls get everyone involved even they do not get to speak for the entire course.
29. Vote with clickers or clicker alternatives.

Resources

- The Schreyer Institute for Teaching Excellence at Penn State University has a webpage devoted to teaching large classes. It can be found at: <http://www.schreyerinstitute.psu.edu/Tools/Large/>.
- The Center for Teaching Excellence at University of Maryland has a teaching guide for large classes at: <http://www.cte.umd.edu/library/teachingLargeClass/guide/index.html>.
- The Center for Research on Learning and Teaching at University of Michigan has a website that describes ways interactive techniques have been employed by instructors. It can be found at: <http://www.crlt.umich.edu/category/tags/large-courses>.
- Teaching and Learning Excellence at University of Wisconsin-Madison has a webpage that discusses best practices for interactive lectures at: <https://tle.wisc.edu/solutions/lecturing/quick-thinks-interactive-lecture>.