Brandeis University Center for Teaching and Learning

Some of our favorite approaches to incorporate interactivity into a class

Irina Dubinina (<u>idubinin@brandeis.edu</u>)

Marty Samuels (<u>msamuels@brandeis.edu</u>)

Dan Perlman (perlman@brandeis.edu) CTL (ctl@brandeis.edu)

"Turn to your neighbor and say..."

Spend 1-2 minutes welcoming your students in the mental space of the classroom by asking them to turn to their neighbor and...

- ...discuss 3 major takeaways from the previous lesson.
- ...give your neighbor a compliment / say something nice to your neighbor.
- o ...practice small talk (particularly useful in a language course).

Small group work

In general, the more students work with peers in pairs or small groups, the more interactive the class will be. For this work to be effective, instructors need to plan the activity ahead of time. Some questions to consider:

- Should group members be assigned roles (e.g., note taker, reporter)
- How many people in a group? (depends on the size of the class, levels of students, subject matter, nature of the task)
- Should students report out or not?
- Should there be some kind of "final" product (e.g., arrive at a consensus, create a short sociological report)? And should this product be in a written or oral form?
- Would students need some guiding questions to complete the task in a group?

Think-Pair-Share

After asking your students a question, give your students a minute or so to individually think (or write) to collect their thoughts in response to a question. Then ask students to turn and talk with a neighboring student, compare ideas, and identify points of agreement and misalignment. These pair discussions may or may not be followed by a whole-group conversation in which individual students are asked to share the results of their pair discussion aloud with the whole class.

Art gallery

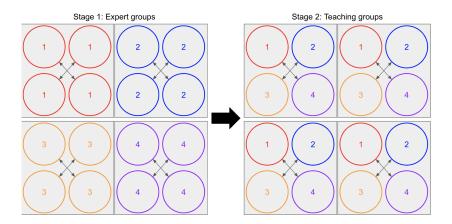
Find several paintings (graphs, pie charts, etc.) that depict a specific topic we have been working on and post them around the classroom. The instructure "invites" students to an "opening night" at an imaginary art gallery (poster session at a conference, etc.). Each chooses an "art-lover" friend (a scientist friend) and "goes" to the gallery. They need to visit 3-4 paintings and talk to each other about what they see, what it may be, and how they feel about what they see. The end of the activity depends on the goals: it can be an oral report to the class (share which painting spoke to you and why), it can be a written report that students complete at home for the next class (individually or as a pair), or it can be something else. This activity may also be used to highlight to the students how much they have learned with no "final" product attached to it.

Sliding lines

Students form two lines, facing each other. Each student gets a short list of questions, each talks to the person they face, then the instructor asks the first student in one of the lines to go to the back of the line and the rest in that line shift one person to the left, thus creating new pairs. Students can start answering questions from the top of the list or continue from where they left off with the previous partner. Repeat. Good for warm-up, sharing first impressions about a text, quick check if students did their flipped classroom task or if they remember material from the previous lesson.

<u>Jigsaw</u>

A jigsaw activity consists of two stages of student group work. The name "jigsaw" comes from the act of rearranging the student groups between the first and second stages.



In the first stage, students work in groups to develop their expertise about one topic they are all working on together. The student groups are then remixed so that the new groups consist of one student from each of the earlier groups. In this second stage, each student teaches their colleagues about the topic they just developed expertise in during the first stage. At the end of a second stage, students are asked to complete a task that they can only do by synthesizing each group member's expertise.

Jigsaws teach students the value of collaboration and teamwork since each student depends on their group mates to teach them about their topics of expertise during the second stage. Knowing that they will each need to teach their peers during the second stage prompts students to be very engaged during the first stage to make sure they really know the material well before they split up.

One way to set up a jigsaw is to divide up a reading, and have different groups become experts on different parts of the reading, and then to stitch their understanding of the whole reading together during the second phase. Another way to set up a jigsaw is to have students research different topics, and in their second phase they share each topic with each other.

"Flip" a lesson

In a "flipped" (or "inverted") lesson, students watch a lecture video or read the course material *before* coming to class, and then do problems and activities that allow them to practice, apply, and critique the pre-class material during class.

The term "flipped" is used relative to a "traditional" classroom, in which students first encounter new course material in class and then apply it to solve problems or critique arguments outside of the classroom. In a flipped lesson, new material is introduced before class, and students apply it to solve problems or analyze arguments during class.

One approach to flip a lesson is to take a small part of a homework assignment that you might ask students to complete after class, and spend 5-10 minutes during class on it instead. To free up the class time to work on in-class activity, remove 5-10 minutes of your lesson and assign it to your students ahead of time as pre-reading.

Flipping a class allows you to have face-to-face class sessions that build on what the students learn before coming into class.

Begin class with a question that they won't be able to answer until the end of the class

To inspire your students' curiosity, begin class by asking them a question that they won't know how to answer yet, but will by the end of the class. Giving students the opportunity to "invent" an answer for a question that's just beyond their current understanding piques their interest and has been shown to inspire deeper learning once you teach them how to answer it.

Before teaching students a new skill or concept, first ask them a question that they would need that new skill or concept to be able to answer. Give your students a few minutes to try to answer it. They probably won't know how to (since you haven't taught them how to yet!), but this will inspire their

curiosity to want to know how to answer it. After giving them 3-5 minutes to try to answer the question, teach your lesson that will tell your students how to answer it.

Just-in-time-teaching enables students to first experience problems before they hear or read the solutions and explanations. Lectures and readings are more effective when they address a problem students have experienced." It has also been shown to enhance learning and the ability to transfer skills from one domain to another.

Typically we teach students a skill or concept, and then give them practice problems to develop the skill. One easy way to implement just-in-time-teaching is to start with a practice problem, and then teach them how to solve it after giving them a chance to grapple with it first.

Opening Puzzler Slide

Students are presented with a rich, open-ended, puzzler (an image, map, question, statement) for which they have to decide what it is, what it signifies, what it implies, what is missing... there are lots of options. Ask students to talk about the item with a neighbor. Typically I do NOT address the issue until later in the class.

What's News?

You can start class with an opportunity for students to bring in and discuss news items (or do this right after the Puzzler). In my classes, these are mostly environmental news items, but students bring up a wide range of other items as well, including human rights, politics, and upcoming campus events. I usually have 2-3 news items lined up to share as well. Sue Lanser, a great English prof (now emerita), used the first few minutes of class for Community Time during which anyone could bring up anything they wanted to discuss.

Hero / Beast of the Week

Hero of the Week (or anything you want to stress): Environmental Studies is typically a really depressing field. At the end of each week, I spotlight one of my personal environmental heroes for a few minutes. These are NOT famous people to whom the students could not relate; rather they are ordinary people who did something special. Many of these are former students who have gone on to do great stuff or even family members. Underlying most of the heroes is the theme that your life will almost certainly take unexpected turns... and that is to be expected. And it is fine. Students really appreciate this upbeat message at the end of each week. In my Ecology class I featured a Beast of the Week, just for fun. What could you regularly feature? (And if you do these, make sure not to skip a week... they students will get very upset if you miss one!) While this is not interactive, per say (as far too many students write), it does help build community in the class.