Facilitate Class Discussion

Active learning: Students are usually more engaged with a task when they are asked to produce an outcome, result, or product that demonstrates their learning. Clickers allow all students to respond to the material covered in class. Provide the opportunity for independent thinking that engages students more fully with a question by encouraging students who might typically wait to hear their peers’ responses before seriously considering a question to think about a question on their own.

Generating Discussion:

Allows for the discussion of issues or alleviate confusion with new material or concepts.
- Students can see how their peers responded and lets them know they may not be the only one who doesn't understand the material.
- Use anonymous polling to generate responses to opinion questions or questions concerning controversial topics.
- Opinion questions: identifying values they find important in a given situation.

Deliberately generate clicker questions to reveal confusion or misunderstandings.
- Design questions that trap students around common misconceptions and ideas that are intuitive but not accurate.
- Look for answer choices for potential clicker questions in student responses to open-ended questions, ones asked on assignments in previous courses, on homework questions, or during class. This can lead to answer choices that better match common student misconceptions and perspectives.
- Create questions that generate a wide distribution of responses – these generate better class discussions.
- Plan for an explanation that is as helpful to the students’ understanding as possible.
- Ambiguity in questions to spur discussion, share reasons behind choosing a particular response.

Create Times for Telling – “Pose, Poll, Discuss”
- After a question, discuss not only the correct answer but why the others were not good answers.
• Focus on the reasoning behind the answers rather than simply on the correctness of the right answer.
• Encourage students to share their rationale behind their choice.
• Demonstrate to students that they are wrong about the question in as dramatic a way as feasible in order to increase their surprise at being wrong.

**Consider before and after polling:** Compare the individually polled results that were collected before and after students discuss the question in small groups.

• Have the students try to convince the others in their group of the correct answer during small group discussion.
• Instructors can ask a student who changed his/her answer during the discussion time to share with the class the reasons for that change.
• Ask for a student who did not change his/her answers to share with the class reasons why he/she did not find peers’ arguments persuasive.
• Ask to hear from a group about the arguments shared during the group discussion time that were most persuasive.
• This is most effective when you withhold the results from the first (before discussion) poll.

**Strategies for Leading Class-wide Discussions:**

• Have students share the reasoning behind their answers to the clicker question.
• Make sure to hear from students about each of the more popular answer choices.
• If no student volunteers to defend or explain a particular answer choice, instructors might step in and suggest some reasons for that choice.
• Encourage students to respond to and challenge each other’s comments during the discussion.
• Refrain from making important points during the discussion if those points can be made by the students.
• Sometimes students have trouble hearing each other’s comments during a class-wide discussion.
• Do not reveal the correct answer to a clicker question, if there is one, too soon.

**Structuring class time:**
Many instructors see value in structuring a class session into a sequence of activities as a way to help students maintain their attention during an entire class.

- Use clicker questions scattered throughout the presentation to maintain student attention.
- Clicker questions can be used to judge how well students understand a concept before moving onto the next one.
- Use clicker questions to set up small group discussions.

**Clickers can gather information from students to determine the direction for a class session, giving all students a voice in determining what should be covered.**

- Questions can determine students’ background knowledge before proceeding with material, to avoid overlap or to use that knowledge in relation to the course material.
- Clicker questions allow you to quickly determine which aspects of the material the students understand and where the confusion lies.
- **Agile teaching**: the ability to shift topics depending on how the students pick up the material.

**Focus your time on where the misunderstandings are rather than waste time covering material that the students already understand.**

- Find out just how familiar students are with material they think they already understand before moving on to a new topic.
- Review previous material to check for confusion.