

Classroom Assessment Techniques (CATS) Described

The following is a selection of formative assessment (feedback) techniques given to students, usually anonymously and not graded, in order to obtain feedback about student learning or effectiveness of teaching strategies. *Adapted from Angelo, T.A. & Cross, P.K. (1993), Classroom Assessment Techniques and Davis, B.G. (1993), Tools for Teaching.*

How to use CATS

Asking students for feedback on their learning, on the course and course components, and on your teaching methods, is very powerful when done in collaboration with students as partners. By bringing students into a conversation with you, you can find out how they are doing and what is working for them. Done regularly, these practices help you improve your courses. Additionally, research shows that student learning improves from them giving you feedback **even more** than from your feedback to them (Hattie, 2009). Here are the steps to doing formative assessment:

1. Decide on the information that you want to gather; ask questions that reinforce a positive approach and the importance of their engagement
2. Provide a way for all students to answer questions in a way that is anonymous/private
3. If needed, provide a small incentive for students to complete the activity
4. Explain the purpose and the process! Let students know that their feedback is valued by you
5. Once you collect answers, aggregate these—you are looking for trends rather than outliers
6. The suggestions below were originally designed for face-to-face classes. We've added options for online courses as needed.
7. Return to students with a summary of the results, an overview of what you want to address, what you can address and what is not feasible (and why, such as changing a textbook). Get further student input if you have proposed changes.
8. Thank them! And repeat the process with some frequency. Many instructors wait until midsemester to gather feedback but getting feedback early and regularly is better in terms of adjusting the course or methods.

Sample Techniques

Background Knowledge Survey

A good starting point for classroom assessment is to gauge the level of knowledge and understanding that students bring into the classroom at the beginning of the semester. A background knowledge survey asks students not only basic questions about previous coursework and preparation, but it also focuses on identifying the extent to which the student may or may not be familiar with key concepts that will be covered in the course. It is best to use the background knowledge survey at the beginning of the semester, at the start of a new topic or project.

Sample

1. What is your major and class year?
 2. Do you have a minor? If yes, what is it?
 3. What preparation have you had (courses, work experience, etc.) that you believe will help you do well in this class?
 4. What goals do you have for this course?
 5. What do you already know about 'X'?
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Minute Papers

The minute paper may be one of the most widely used and accepted methods of classroom assessment. This method offers a quick and easy way to assess student learning at a particular point in time. It supplies helpful feedback and requires little time or effort to administer. **Several minutes before class ends, stop your lecture, and ask students to take out a clean sheet of paper or index card to answer one or two questions** you pose to them. Students turn the anonymous papers in before leaving. If teaching online, use a survey instrument or polling software to ask these open-ended questions, although preferably one that lets you monitor the number of answers in real time.

Samples

1. What was the most important thing you learned today?
 2. What are the five most important points from this section?
 3. What questions do you still have about the material we covered today?
 4. What stood out to you most about today's lecture?
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Misconception/Preconception Check

This technique is a way to assess what students bring with them into class, or how they are processing information at various points in the semester. **Used at the start of a course or a unit,**

the check is a short survey, questionnaire, or essay-type evaluation that asks students to comment on information and key points relevant to course content. Student answers provide instructors with an understanding of the extent of ‘real’ understanding or knowledge that students bring with them on the first day of class. It also offers information about misconceptions that students may have which the instructor may then address.

Muddiest Point

The muddiest point exercise is a variation of the minute paper. Administered during or at the end of a lecture or class discussion, the muddiest point exercise asks “What was the muddiest point today?” You ask students to think about what went on during class that day and to write about what was the least clear point, concept, or process during that class. You can do this on paper, index cards, or as an ungraded, one question survey. Students can complete this as an “exit slip” to finish and leave class.

Punctuated Lectures

This technique provides immediate feedback on how students are learning from a lecture or a demonstration and how their behavior may be influencing the process. It also encourages student to become self-monitoring listeners and self-reflective learners. The five steps are:

- a. Listen: students begin by listening to a lecture or watch a demonstration
- b. Stop: after a part of the presentation has been completed, the instructor stops the action and gives students the following instruction
- c. Reflect: students reflect on what they were doing during the presentation and how their behavior may have helped or hindered their understanding of the information. A question could be: “As the lecture progressed, what did you do specifically that you feel helped your learning?”
- d. Write: students write down any insights they have gained
- e. Feedback: students then give this feedback to the instructor in the form of a short anonymous note, poll, or survey. The entire process should take no more than 2 minutes or less

Listen | Stop | Reflect | Write | Feedback

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