

1 Classroom

Assessment Techniques

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2 What IS Classroom Assessment?

- Classroom assessment is both a teaching approach and a set of techniques.
- The approach is that the more you know about what and how students are learning, the better you can plan learning activities to structure your teaching.
- The techniques are mostly simple, non-graded, anonymous, in-class activities that give both you and your students useful feedback on the teaching-learning process.

3 How is this different from testing?

- Grading? No. Improvement? Yes.
- Classroom assessment differs from tests and other forms of student assessment in that it is aimed at course improvement, rather than at assigning grades.
- The primary goal is to better understand your students' learning and so to improve your teaching.

4 How do I use these techniques?

- Decide what you want to learn from a classroom assessment.
- Choose a technique (CAT) that provides this feedback, is consistent with your style, and is easily implemented.
- Explain the purpose to students, then conduct it.
- After class, review the results and decide what changes, if any, to make.
- Let your students know what you learned from the CAT and how you will use this information.

5 Why should I do this?

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6 For you....

- Provide short-term feedback about the day-to-day learning and teaching process at a time when it is still possible to make mid-course corrections.
- Provide useful information about student learning with a much lower investment of time compared to tests, papers, and other traditional means of learning assessment.

7 For you....

Frequent use of CATs can:

- Help to foster good rapport with students and increase the efficacy of teaching and learning.
- Encourage the view that teaching is a formative process that evolves over time with feedback.

8 For students....

Frequent use of CATs can:

- Help them become better monitors of their own learning.
- Help break down feelings of anonymity, especially in larger classrooms.
- Point out the need to alter study skills.
- Provide concrete evidence that the instructor cares about learning.

9 I can't take the credit...

- These techniques were taught to me during my work for my Masters degree in Science Education, but are easily adapted for any curriculum.
- They come from Thomas A. Angelo and K. Patricia Cross from the book "Classroom Assessment Techniques: A Handbook for College Teachers" available from Amazon for around \$30.

10 Let's talk about a few of my favorites...

- Minute Paper
- Muddiest Point
- Chain Notes
- Memory Matrix

11 Minute Paper

- How?
 - During the last few minutes of the class period, ask students to answer on a half-sheet of paper: "What is the most important point you learned today?"; and, "What point remains least clear to you?".
- Why?
 - The purpose is to elicit data about students' comprehension of a particular class session.

12 Minute Paper

- What to do with the data?
 - Review responses and note any useful comments. During the next class periods emphasize or even reteach the issues illuminated by your students' comments.
- Time Required?
 - Prep: Low
 - In class: Low
 - Analysis: Low

13 Muddiest Point

- How?
 - This is a moderation of the Minute Paper CAT. After your lecture or discussion, have your students jot down the answer to this question: “What was the muddiest point in _____?”
- Why?
 - This CAT provides information on what students find least clear or most confusing about a lesson or topic.

14 Muddiest Point

- What to do with the data?
 - Use this feedback to guide your teaching decisions about what topics to emphasize and how much time to spend on a topic.
- Time Required?
 - Prep: Low
 - In class: Low
 - Analysis: Low

15 Chain Notes

- How?
 - Students pass around an envelope on which the teacher has written one question about the class. When the envelope reaches a student he/she spends a moment to respond to the question on provided index cards and then places the response in the envelope.
- Why?
 - This CAT results in a rich, composite record of student reactions to your class in action, and allows you to view your class through your students eyes.

16 Chain Notes

- What to do with the data?
 - Go through the student responses and determine the best criteria for categorizing the data with the goal of detecting response patterns. Discussing the patterns of responses with students can lead to better teaching and learning.
- Time Required?
 - Prep: Low
 - In class: Low
 - Analysis: Low

17 Memory Matrix

- How?
 - Students fill in cells of a two-dimensional diagram for which instructor has provided labels.
- Why?
 - The Memory Matrix assesses students’ recall of content, causes students to organize or categorize their learning, and even helps students draw connections within concepts.

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20 Memory Matrix

- What to do with the data?
 - Tally the numbers of correct and incorrect responses in each cell. Analyze differences both between and among the cells. Look for patterns among the incorrect responses and decide what might be the cause(s).
- Time Required?
 - Prep: Med
 - In class: Med
 - Analysis: Med

21 Empty Outlines

- How?
 - Provide students with an empty or partially completed outline of an in-class presentation, lecture or homework assignment, then give them a limited amount of time to fill in the blanks.
- Why?
 - Outlines are often used to guide learning, but not often for assessment. Helps to show you how well a student has 'caught' the concept, and also helps learners recall and organize main topics.

22 Empty Outlines

- What to do with the data?
 - When used with small classes, review each students work and look for patters of good, bad, and missing responses. Could also be done as a group project.
- Time Required?
 - Prep: Med
 - In class: Low
 - Analysis: Med

23 Directed Paraphrasing

- How?

- Ask students to write a layman's "translation" of something they have just learned -- geared to a specified individual or audience.
- Why?
 - This CAT will assess students' ability to comprehend and transfer concepts – instead of parroting back the book definition or what information you gave them.

24 Directed Paraphrasing

- What to do with the data?
 - Categorize student responses according to characteristics you feel are important. Analyze the responses both within and across categories, noting ways you could address student needs.
- Time Required?
 - Prep: Low
 - In class: Med
 - Analysis: Med

25 Student Generated Test Questions

- How?
 - Allow students to write test questions and model answers for specified topics, in a format consistent with course exams.
- Why?
 - This will give students the opportunity to evaluate the course topics, reflect on what they understand, and what are good test items.

26 Student Generated Test Questions

- What to do with the data?
 - Make a rough tally of the questions your students propose and the topics that they cover. Evaluate the questions and use the good ones as prompts for discussion. You may also want to revise the questions and use them on the upcoming exam.
- Time Required?
 - Prep: Med
 - In class: High
 - Analysis: High (May be a good homework task)