

CLASSROOM ASSESSMENT TECHNIQUE EXAMPLES

From Classroom Assessment Techniques. A Handbook for College Teachers by Thomas A. Angelo and K. Patricia Cross, Second Edition, San Francisco, Jossey-Bass Inc., Publishers, 1993. Fifty Classroom Assessment Techniques are presented in this book. The book is located in the Faculty Center for Teaching and e-Learning Resource Room, 149C Atkins Library, if you want additional techniques or additional information on the techniques described below. These techniques are to be used as starting points, ideas to be adapted and improved upon.

1. BACKGROUND KNOWLEDGE PROBE:

Description. At the first class meeting, many college teachers ask students for general information on their level of preparation, often requesting that students list courses they have already taken in the relevant field. This technique is designed to collect much more specific, and more useful, feedback on students' prior learning. Background Knowledge Probes are short, simple questionnaires prepared by instructors for use at the beginning of a course, at the start of a new unit or lesson, or prior to introducing an important new topic. A given Background Knowledge Probe may require students to write short answers, to circle the correct response to multiple-choice questions, or both.

Step-by-Step Procedure.

1. Before introducing an important new concept, subject, or topic in the course syllabus, consider what the students may already know about it. Recognizing that their knowledge may be partial, fragmentary, simplistic, or even incorrect, try to find at least one point that most students are likely to know, and use that point to lead into others, less familiar points.
2. Prepare two or three open-ended questions, a handful of short-answer questions, or ten to twenty multiple-choice questions that will probe the students' existing knowledge of that concept, subject, or topic. These questions need to be carefully phrased, since a vocabulary that may not be familiar to the students can obscure your assessment of how well they know the facts or concepts.
3. Write your open-ended questions on the chalkboard, or hand out short questionnaires. Direct students to answer open-ended questions succinctly, in two or three sentences if possible. Make a point of announcing that these Background Knowledge Probes are not tests or quizzes and will not be graded. Encourage students to give thoughtful answers that will help you make effective instructional decisions.
4. At the next class meeting, or as soon as possible, let students know that results, and tell them how that information will affect what you do as the teacher and how it should affect what they do as learners.

2. MINUTE PAPER:

Description. No other technique has been used more often or by more college teachers than the Minute Paper. This technique - also known as the One-Minute Paper and the Half-Sheet Response - provides a quick and extremely simple way to collect written feedback on student learning. To use the Minute Paper, an instructor

stops class two or three minutes early and asks students to respond briefly to some variation on the following two questions: "What was the most important thing you learned during this class?" and "What important question remains unanswered?" Students they write their responses on index cards or half-sheets of scrap paper and hand them in.

Step-by-Step Procedure.

1. Decide first what you want to focus on and, as a consequence, when to administer the Minute Paper. If you want to focus on students' understanding of a lecture, the last few minutes of class may be the best time. If your focus is on a prior homework assignment, however, the first few minutes may be more appropriate.
2. Using the two basic questions from the "Description" above as starting points, write Minute Paper prompts that fit your course and students. Try out your Minute Paper on a colleague or teaching assistant before using it in class.
3. Plan to set aside five to ten minutes of your next class to use the technique, as well as time later to discuss the results.
4. Before class, write one or, at the most, two Minute Paper questions on the chalkboard or prepare an overhead transparency.
5. At a convenient time, hand out index cards or half-sheets of scrap paper.
6. Unless there is a very good reason to know who wrote what, direct students to leave their names off the papers or cards.
7. Let the students know how much time they will have (two to five minutes per question is usually enough), what kinds of answers you want (words, phrases, or short sentences), and when they can expect your feedback.

3. MUDDIEST POINT:

Description. The Muddiest Point is just about the simplest technique one can use. It is also remarkable efficient, since it provides a high information return for a very low investment to time and energy. The technique consists of asking students to jot down a quick response to one question: "What was the muddiest point in....?" The focus of the Muddiest Point assessment might be a lecture, a discussion, a homework assignment, a play, or a film.

Step-by-Step Procedure.

1. Determine what you want feedback on: the entire class session or one self-contained segment? A lecture, a discussion, a presentation?
2. If you are using the technique in class, reserve a few minutes at the end of the class session. Leave enough time to ask the question, to allow students to respond, and to collect their responses by the usual ending time.
3. Let students know beforehand how much time they will have to respond and what use you will make of their responses.
4. Pass out slips of paper or index cards for students to write on.
5. Collect the responses as or before students leave. Stationing yourself at the door and collecting "muddy points" as students file out is one way; leaving a "muddy point" collection box by the exit is another.
6. Respond to the students' feedback during the next class meeting or as soon as possible afterward.

4. ONE-SENTENCE SUMMARY:

Description. This simple technique challenges students to answer the questions "Who does what to whom, when, where, how, and why?" (represented by the letters WDWWWHW) about a given topic, and then to synthesize those answers into a simple informative, grammatical, and long summary sentence.

Step-by-Step Procedure.

1. Select an important topic or work that your students have recently studied in your course and that you expect them to learn to summarize.
2. Working as quickly as you can, answer the questions "Who did/Does What to Whom, When, Where, How and Why?" in relation to that topic. Note how long this first step takes you.
3. Next, turn your answers into a grammatical sentence that follows WDWWWHS pattern. Note how long this second step takes.
4. Allow your students up to twice as much time as it took you to carry out the task and give them clear direction on the One-Sentence Summary technique before you announce the topic to be summarized.

5. WHAT'S THE PRINCIPLE?

Description. After students figure out what type of problem they are dealing with, they often must then decide what principle or principles to apply in order to solve the problem. This technique focuses on this step in problem solving. It provides students with a few problems and asks them to state the principle that best applies to each problem.

Step-by-Step Procedure.

1. Identify the basic principles that you expect students to learn in your course. Make sure focus only on those that students have been taught.
2. Find or create sample problems or short examples that illustrate each of these principles. Each example should illustrate only one principle.
3. Create a What's the Principle? Form that includes a listing of the relevant principles and specific examples or problems for students to match to those principles.
4. Try out your assessment on a graduate student or colleague to make certain it is not too difficult or too time-consuming to use in class.
5. After you have made any necessary revisions to the form, apply the assessment.

6. DIRECTED PARAPHRASING:

Description: The instructor asks students to paraphrase part of a lesson for a specific audience and purpose, using their own words. This is especially useful for pre-professional students who will be asked in their careers to translate specialized information into language that clients or customers can understand.

Purpose: This technique allows faculty to examine students' understanding of information and their ability to transform it into a form that can be meaningful to specific audiences other than the student and instructor. This task is more complex

than simple paraphrasing (or summary) in that the faculty member directs the student to speak/write to a particular audience and purpose.

Suggestions for Use: The task works well when students are learning topics or concepts that they will later be expected to communicate to others. When this is not the case (perhaps in general education classes in the humanities), the faculty member might want to ask students to write to other students in the class or to other freshmen at CMU.

Using Information: Answers can be grouped into four sets -- confused, minimal, adequate, and excellent. Then examine responses within and across the four evaluative categories for accuracy, suitability for the intended audience, and effectiveness in fulfilling the assigned purpose. An alternative is to circle the clearest (best) point made by each student and the worst (muddiest) point. Then the responses from students can be grouped to find patterns of clarity and confusion.

7) APPLICATION CARDS:

Description: After students have been introduced to some principle, generalization, theory, or procedure, the instructor passes out index cards and asks students to write down at least one possible, real-world application for what they have just learned.

Step By Step: This technique allows faculty to determine quickly whether students understand the applications of what they have learned. Students are forced to link new information with prior knowledge. They may also have an increased interest in the material covered if they are asked to speak immediately to the ways in which this new material can be applied in real world settings.

Suggestions for Use: Most classes cover material that can/should be applied. The technique is often used in the social sciences, in technical fields, and in pre-professional courses.

Using Information: Answers can be separated into four groups -- great, acceptable, marginal, and not acceptable. Responses might be discussed in the next class, with some attention given to factors that argue for and against sets of responses.