

SELECTED CLASSROOM ASSESSMENT TECHNIQUES

KNOWLEDGE AND SKILLS

<i>Prior Knowledge, Recall, Understanding</i>			
<i>Name</i>	<i>Description</i>	<i>What to do with the data</i>	<i>Time required</i>
Background knowledge probe	Before introducing an important new concept, subject, or topic, students respond to questions that will probe their existing knowledge of that concept, subject or topic.	Classify responses into groups (e.g., prepared/non-prepared; no knowledge/erroneous knowledge/OK knowledge). Use the information to revise your plans for teaching the topic.	Prep: Medium In class: Low Analysis: Medium
Focused listing	In a given time period, students write down as many ideas that are closely related to a single important term, name, or concept. Works well in classes of any size and is useful in courses in which a large amount of new information is regularly introduced.	The simplest way is to sort the responses into "related" or "unrelated." Then you can classify the responses according to the type or degree of relation to the focus topic (e.g., examples, definitions, illustrations; primary, secondary, tertiary relations)	Prep: Low In class: Low Analysis: Low
Misconception/preconception check	Students respond to a questionnaire that elicits information about students' ideas and beliefs that may hinder or block further learning.	Organize the information so that you can answer three questions: what misperceptions or preconceptions students have that may interfere with learning? How many students have them?	Prep: Medium In class: Low Analysis: Medium
Memory matrix	Students fill in cells of a two-dimensional diagram for which the instructor has provided labels. For example, in a music course, labels might consist of periods (Baroque, Classical) by countries (Germany, France, Britton); students enter composers in cells to demonstrate their ability to remember and classify key concepts.	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.	Prep: Medium In class: Medium Analysis: Medium
Minute paper	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?" The purpose is to elicit data about students' comprehension of a particular class session.	Review responses and note any useful comments. During the next class period emphasize the issues illuminated by your students' comments.	Prep: Low In class: Low Analysis: Low
Muddiest Point	Ask students to jot down a quick response to one question: "What was the muddiest point in _____?" the focus could be a lecture, a discussion, homework, a play, or a film.	Quickly read through at least half of the responses, looking for common types of muddy points. Sort them by affinity. Use a principle (number, concepts, skills) to decide which to deal with in class.	Prep: Low In class: Low Analysis: Low

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Problem Solving			
Name	Description	What to do with the data	Time required
Problem recognition task	Present students with a few examples of common problem types. The students' task is to recognize and identify the particular type of problem each example represents	Quickly scan the responses and tally the number of incorrect and correct answers for each problem	Prep: Medium In class: Low Analysis: Low
What's the principle?	After recognizing a type of problem, students have to decide what principle or principles to apply (or which ones have been violated) in order to solve the problem.	Tally the number of right and wrong answers and note patterns in the specific wrong answers given. If there is no pattern guessing maybe suspected.	Prep: Medium In class: Low Analysis: Low
Documented problem solutions	Prompts students to keep track of the steps they take in solving a problem.	Select a few responses to analyze; quickly find three well documented and correct responses and three well documented but incorrect answers; compare and make notes to identify key differences	Prep: Low In class: Medium Analysis: Med/High
Skill in Application and Performance			
Name	Description	What to do with the data	Time required
Directed paraphrasing	Ask students to write a layman's "translation" of something they have just learned—geared to a specified individual or audience—to assess their ability to comprehend and transfer concepts.	Categorize student responses according to characteristics you feel are most important. Analyze the responses both within and across categories, noting ways you could address student needs.	Prep: Low In class: Medium Analysis: Medium
Application cards	After teaching about an important theory, principle, or procedure, ask students to write down at least one real-world application for what they have just learned to determine how well they can transfer their learning.	Quickly read once through the application and categorize them according to their quality. Pick out a broad range of examples and present them to the class.	Prep: Low In class: Low Analysis: Medium
Student generated test questions	Allow students to write test questions and model answers for specified topics, in a format consistent with course exams. This will give students the opportunity to evaluate the course topics, reflect on what they understand, and consider what good test questions might be.	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.	Prep: Medium In class: High Analysis: High <i>(may be homework)</i>
Paper or Project Prospectus	Prompt students to think through the elements of an assignment: topic, purpose, audience, major questions to answer, basic organization, time, and resources needed.	Skim through the responses to get a general idea of weaknesses and strengths. In a second reading assess which prompts received the muddiest responses.	Prep: Medium In class: High Analysis: High

Source: Angelo, T. A., & Cross, P. K. (1993). *Classroom assessment techniques: A handbook for college teachers* (2nd ed.). San Francisco, CA: Jossey-Brass.

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<i>Synthesis and Creative Thinking</i>			
<i>Name</i>	<i>Description</i>	<i>What to do with the data</i>	<i>Time required</i>
One-Sentence summary	Students summarize knowledge of a topic by constructing a single sentence that answers the questions "Who does what to whom, when, where, how, and why?" The purpose is to have students select only the defining features of an idea.	Evaluate the quality of each summary quickly and holistically. Note whether students have identified the essential concepts of the class topic and their interrelationships. Share your observations with your students.	Prep: Low In class: Medium Analysis: Medium
Word Journal	First students summarize a short text in a single word. Second the student writes a paragraph explaining why he or she chose the word to summarize the text.	Contrast with your own list of possible words; keep track of the students' words and of the kinds of arguments; select 3 or 4 examples to share,	Prep: Low to Med In class: Med/High Analysis: Med/High
Approximate analogies	To find out whether student understand the relationship between to concepts, they complete the second half of an analogy — A is to B as X is to Y — for which their instructor has supplied the first half (A is to B).	Quickly sort the responses into three piles, "good," "poor/wrong," and "in doubt." Go over the "in doubt" pile several times to exhaust it. Select examples from each group to bring to the class and discuss what makes the analogy a good/poor choice.	Prep: Low In class: Low Analysis: Medium
Concept Maps	Students produce diagrams or drawings that show and name the connections between major concepts and other concepts, facts, or principles that they have learned. Very useful in courses requiring conceptual learning.	Go over the maps to get a sense of the relationships students produced; assess the degree of "fit" between students' understanding of relevant concepts and your map; identify possible interventions to address problematic relations.	Prep: Medium In class: Medium Analysis: Med/High
Invented Dialogues	Students create a dialogue (with known quotes or invented ones) to synthesize knowledge of issues, personalities, and historical periods in the form of a structured conversation.	Treat as you would any assignment. (e.g., count the number of important points made, originality, coherence, in character exchanges).	Prep: Med/High In class: High Analysis: High

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<i>Analysis and Critical Thinking</i>			
<i>Name</i>	<i>Description</i>	<i>What to do with the data</i>	<i>Time required</i>
Categorizing Grid	Students receive a grid that contains 2 or 3 important categories along with a list of scrambled list of items. Students have to sort the terms into the correct categories of the grid in a limited amount of time.	Quickly check if the items have been correctly placed; note the most often miscategorized ones or those left out.	Prep: Low In class: Low Analysis: Low
Defining Features Matrix	Students categorize concepts according to the presence (+) or absence (-) of important defining features.	Compare your master copy with students' matrices; keep a running list of incorrect responses on a larger empty matrix. Look for patterns in the errors.	Prep: Medium In class: Low Analysis: Low
Pro and Con Grid	Students jot down a quick list of pros and cons (advantages /disadvantages; benefits/costs) of an issue of concern.	List the points and make a frequency count; compare with your list; indicate good contributions or important omissions.	Prep: Low In class: Low Analysis: Medium
Content, form, and function outlines	Or the <i>what, how, and why</i> (WHW) outline; students analyze the content (what), form (how), and function (why) of a given message, writing brief notes answering WHW.	Keep a running tally of the problem in the analysis of each of the prompts. Report on the ones that were more difficult to analyze.	Prep: Medium In class: High Analysis: High

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