

CAT 2: The Muddiest Point (Assesses Prior Knowledge, Recall, & Understanding)

Estimated levels of time/energy required to prepare, to respond (students), and to analyze:
LOW

Description: Students respond to the question: 1) What was the muddiest point in _____?
This can assess a lecture, discussion, homework assignment, play, film, etc.

Purpose: Understanding what students find least clear or most confusing helps instructors decide whether instructional adjustments need to be made. When instructors respond to students' responses, students learn how experts in a given discipline distinguish major points from details. Additionally, students' questions are made visible in time to facilitate further learning.

Procedure:

- 1) Decide what you wish to assess with the Muddiest Point. If your interest is in the understanding of a homework assignment, the first few minutes of class may be most appropriate. If you wish to assess their recall of the content of material presented in class, then last few minutes of class may be most appropriate.
- 2) Using the basic question from the Description above, write a prompt that fits your course and students. It is often a good idea to try your prompt on a colleague or teaching assistant before using in class to ensure clarity of the question.
- 3) Plan to use 5 to 10 minutes of class for the **initial** implementation and 5 to 10 minutes in the subsequent class to discuss the results.
- 4) Prepare the one or two questions to be display-ready by writing it on the board, a transparency, or digitally projected. They could also be written on a half-sheet of paper and distributed to the students. It is important the prompts are presented in writing. Do not only read the question(s).
- 5) Hand out index cards or half-sheets of paper. It is best if students do not write their names, unless there is a very good reason to know who wrote which comments.
- 6) Explain the time limit, appropriate format of answers, and when they will receive feedback. Two to five minutes is usually enough time. Responses range from words or phrases to short sentences.

Examples:

Course: Political Science: International Relations **Lecture:** Decline & Fall of the Soviet Union

This CAT was used in a senior-level honors class to assess understanding of a pre-recorded videotape, which was an hour-long speech to Washington, D.C.-based foreign policy consultants and journalists.

Course: General Chemistry

This CAT was used to assess students' understanding of a lecture on enthalpy and entropy. After reading responses, the instructor realized that many students had not firmly grasped the differences and probably did not understand either principle in isolation.

Adaptations/Extensions:

- 1) Ask students to read each other's drafts of writing assignments and discuss the muddiest points.
- 2) Ask a few students to categorize, summarize, and present the muddiest points to the class.

Suggestions: Respond to students' feedback the very next time class meets. Responding to students' feedback may take longer than anticipated because questions lead to other questions. Set clear time limits. To temper expectations and disappointment, let students know you will not comment on everything. Also note that you may need to explain to students how to write a good

muddiest point response that is actually helpful. Generalizations such as, "I didn't get any of it," are not as helpful, as "I didn't understand the basis for the theory."

References and Resources:

Mosteller, F. (1989). The "muddiest point in the lecture" as a feedback device. *On Teaching and Learning: The Journal of the Harvard-Danforth Center*, 3, 10-21.