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Classroom Asessment: Guidelines for Success

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If you've ever wondered, as a class ended, how well your students really understood that day's material, then you'll understand the impetus behind Classroom Assessment. If you've ever been unhappily surprised by students' performance on a midterm, final, or major assignment, then you'll understand the need for Classroom Assessment. And if you'd like to benefit from lessons learned since 1986, by practitioners and researchers, on how to use Classroom Assessment to improve teaching and learning, then you may find this essay useful.

What is Classroom Assessment? Researchers have long known that both students and teachers need clear, timely, and focused feedback to improve performance. Classroom Assessment is a simple method - and a toolbox full of techniques - which faculty use to collect such feedback, early and often, on how well students are learning. Its purpose is to provide faculty and students with information and insights needed to improve teaching effectiveness and learning quality. Faculty use feedback gleaned through Classroom Assessment Techniques (CATs) to inform changes in their teaching. Faculty also share feedback from CATs with students to help them improve their learning and study strategies. Since 1986, when K. Patricia Cross and I first introduced Classroom Assessment, this practical feedback method has been employed by tens of thousands of college teachers in the United States and abroad.

The "Minute Paper" is one of the simplest, most widely used CATs,

and a good example of the method. Attributed to Dr. Charles Schwartz, a physics professor at UC Berkeley, the Minute Paper has, been adapted and used since the mid-1980s in virtually every discipline. The Minute Paper asks students to respond anonymously to some variant of these two questions: (1) What are the 2-3 most important things you learned in class today? And (2) What questions remain uppermost in your mind? The "Muddiest Point," a variation on the Minute Paper developed by Professor Frederick Mosteller of Harvard, elicits useful feedback with just one question: "What was the muddiest point in today's lecture?" - or in today's discussion, lab, reading, quiz, or other learning activity.

By quickly scanning and summarizing responses to the CAT, the teacher can make well-targeted adjustments to the next class, recognize and capitalize on what students have learned well (or not learned)), and clear up questions that might impede further learning. We've learned that Classroom Assessment is most effective when teachers: (1) explain why they are asking these questions, (2) share a summary of responses with students, and (3) discuss how they and the students can make best use of the feedback. Letting students in on the process helps promote active engagement, participation, and more reflective learning.

At first glance, faculty sometimes confuse Classroom Assessment Techniques (CATs) with the questions we ask in class, with tests and quizzes, or with familiar teaching techniques. Most teachers ask questions to check understanding. And most of us have noticed that typically only a small, not very representative percentage of students volunteers to answer. CATs, by contrast, elicit anonymous responses, usually in writing, from all or nearly all of the students. Unlike quizzes and tests, CATs are for quickly assessing the whole group's learning, not for evaluating the work of individual students to assign grades. And while all faculty use teaching techniques, whether they know it or not, some faculty go a step further, using CATs to find out how well those techniques are promoting learning.

Since the late 1980s, several researchers have studied the effects and effectiveness of using Classroom Assessment Techniques in college and university classrooms. From these studies, which involved observations, interviews, focus groups, survey questionnaires, and/or

document analysis, several clear trends have emerged. Below, I'll summarize key lessons and guidelines from that research and, in particular, from an extensive study of faculty and student attitudes about the use of CATs carried out by Mimi Harris Steadman (1998).

What's in it for students? Across many different studies, the great majority of students whose teachers employed CATs describe the process as advantageous. These students see CATs as evidence that instructors are interested in and responsive to their concerns and suggestions. They report feeling more involved, engaged, and interested in class. They tend to rate teachers who use CATs as more effective than those who don't. And some students feel that CATs help them learn how to learn - as well as to learn course content.

Surprisingly, students rarely identify any disadvantages in using CATs. The few negative comments tend to focus on faculty who either do not respond or respond defensively to feedback, or on the fact that CATs "force" passive students to participate actively. On the whole, it appears that students both value and benefit from the effective use of Classroom Assessment.

What's in it for teachers? Since most faculty who use Classroom Assessment do so voluntarily, it is perhaps less surprising that they tend to see its benefits as far outweighing its costs. The advantage teachers most often note is that CATs provide a quick and easy way to monitor what and how their students are learning. They also mention the importance of gaining tools and data to reflect on and improve their teaching. Teachers believe that this simple assessment and feedback method raises student involvement and learning quality. Those who share their Classroom Assessment experiences and data with other teachers are the most enthusiastic. Faculty, like students, report few disadvantages. However, some note the amount of time CATs require and the challenges posed by negative feedback. Overall, like their students, most faculty who use Classroom Assessment are convinced it benefits teachers and learners. Both teachers and learners recognize intrinsic (more satisfaction and learning) and extrinsic (higher grades and student evaluations) motivators for using CATs.

This suggests that both groups see this as a way of "doing well by

doing good."

Getting Started Successfully One way to get started is to borrow and skim through a copy of *Classroom Assessment Techniques: A Handbook for College Teachers*, a how-to resource for faculty. It contains 50 different CATs, examples and case studies from many disciplines, guidelines for success, as well as information on the theory and research behind the method.

In the last decade, several other books, articles, and dissertations have been published on Classroom Assessment, and a growing number of websites, particularly those of teaching and learning centers, offer useful information on CATs. After fifteen years of working with faculty, we've learned that it's wise to start small, to limit risk-taking and time invested initially, and to share ideas and outcomes with colleagues. The most satisfied and successful Classroom Assessors are those who belong to face-to-face (or virtual) "learning communities" of teachers interested in improving their practice and their students' learning.

Seven Guidelines for Success The list that follows is based on recommendations from hundreds of experienced Classroom Assessors.

- Don't ask if you don't want to know. Don't ask for feedback on things you can't or won't change.
- Don't collect more feedback than you can analyze and respond to by the next class meeting.
- Don't simply adopt assessment techniques from others; adapt them to your own subject and students.
- Before you use a CAT, ask yourself: How might responses to this question(s) help me and my students improve? If you can't answer that question, don't do the assessment.
- Take advantage of the "Hawthorne Effect." If students know that you're using CATs to promote involvement, they're likely to be more involved. Alternately, if you explain that you are using it to promote more reflection and metacognition, you're likely to get just that.
- Teach students how to give useful feedback. If a CAT is worth doing, it's worth showing students how.

- Make sure to "close the feedback loop" by letting students know what you've gleaned from their responses and how you and they can use that information to improve learning.

From Classroom Assessment to Classroom Research

Classroom Assessment is one method of inquiry within the larger framework of Classroom Research - systematic, ongoing, scholarly inquiry into student learning by faculty. As such, Classroom Assessment serves many teachers as a natural introduction to the scholarship of teaching and learning.

References and Resources

Angelo, T.A. (Ed.) (1998). *Classroom Assessment and Research: Uses, approaches, and research findings*. New Directions for Teaching and Learning, no. 75. San Francisco: Jossey-Bass, 1998.

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

Angelo, T.A. (Ed.). (1991). *Classroom research: Early lessons from success*. New Directions for Teaching and Learning, no. 46. San Francisco: Jossey-Bass.

Cross, K.P., & Steadman, M. H. (1996). *Classroom research: Implementing the scholarship of teaching*. San Francisco: Jossey-Bass.

Steadman, M.H. (1998). Using classroom assessment to change both teaching and learning. In T.A. Angelo (Ed.), *Classroom assessment and research: Uses, approaches, and research findings*. New Directions for Teaching and Learning, no. 75. San Francisco: Jossey-Bass.