

Classroom Assessment Techniques Workshop

Morningside College

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Office of Assessment & Institutional Research (OAIR)

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Background Knowledge Probe (CAT #1)

In response to each name, term or concept in bold print below, circle the number that best represents your current knowledge:

1. Course Grading

1. Have never heard of this
2. Have heard of it
3. Have some idea what this means, but not too clear
4. Have a clear idea of what this means and can explain it

2. Assessment

1. Have never heard of this
2. Have heard of it, but don't really know what it means
3. Have some idea what this means, but not too clear
4. Have a clear idea what this means and can explain it

Background Knowledge Probe (CAT #1)

3. Course-embedded Assessment

1. Have never heard of this
2. Have heard of it, but don't really know what it is
3. Have some idea what it is, but not too clear on its purpose
4. Have a clear idea of what this and can explain how to use it

4. Classroom Assessment

1. Have never heard of this
2. Have heard of it, but don't really know what it is
3. Have some idea what it is, but not too clear on its purpose
4. Have a clear idea what this is and can explain how to use it

CAT #1 & Learning

- Instructors can probe students' prior learning to determine where to start and at what level and to try to identify misconceptions/preconceptions that may hamper learning (see also CAT #3)
- To be remembered, new information must be meaningfully connected to prior knowledge, and it must first be remembered in order to be learned (scaffolding).
- Unlearning what is already known is often more difficult than learning new information.
- Provides a students with a preview of what is to come and a review of previous learning
- Can be used in a pre- and post-assessment approach

Academic Assessment

The systematic and ongoing process used by faculty and students to gather, analyze and use information to improve student learning.

Goal Ranking & Matching Exercise (#35)

- List three or four goals you hope to achieve – things you hope to learn or questions you hope to raise – through participating in this workshop.
- Rank your goals in term of their relative importance to you with the most important goal #1, and so on.
- As you hear the presenter's goals, write down "Yes" next to each of your goals that matches one that is listed. If you have goals that the presenter has not mentioned, write down "No".

Learning Outcomes

Workshop participants will be able to...

- Differentiate between course grading, course-embedded assessment, and classroom assessment.
- Apply the Teaching Goals Inventory for initial identification of useful classroom assessment techniques.
- Identify at least two classroom assessment techniques useful for a specific course currently being taught.

Goal Ranking & Matching Exercise (#35) continued

- Do you have any important goals which are not included in the presenter's list of goals?

CAT #35 & Learning

- CAT #35 helps to assess degree of fit between teacher's and learners' goals and the relative importance and difficulty attached to the goals.
- Learning is more effective and efficient when learners have explicit, reasonable, and positive goals, and when their goals fit well with the teacher's goals.
- Students are more likely to be motivated to learn when they can see the connection between their personal goals and course goals.
- General education; adult learners
- Can be used to create shared goals.
- Helps students to identify and clarify their own learning goals – important skill for life-long learning.

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Course Grading

- Purpose is to classify student performance in relation to other students and the instructor's expectations; summative
- Sources include tests, quizzes, projects, assignments, attendance, participation, etc.
- Focus is on the individual student
- Used to determine progression in meeting graduation requirements and as a selection tool.

Course-embedded Assessment

- Collecting assessment information for program or institutional assessment activities within the classroom
- Taking a second look at materials generated by students in a course for grading purposes
- May involve design of new exam questions and/or assignments for explicit purpose of proving group level information
- Example: capstone project

Course-embedded Assessment

- Purpose is to provide information on student learning while increasing student motivation and convenience.
- Sources include tests, quizzes, assignments, projects, journals, logs, portfolios, performances, etc.
- Focus is on the program and/or institutional level
- Used by faculty to improve curriculum

Classroom Assessment

- Small-scale assessments conducted continuously in classrooms by faculty members to determine what students are learning in that class.

Classroom Assessment

- Purpose is to improve learning directly by providing faculty with the kind of feedback they need to inform their instructional decisions at the course level; formative
- Sources are informal, feedback-gathering tools (CATs, etc)
- Focus is on the students within a course
- Used by the instructor of a course to quickly assess the whole class's learning in order to adjust instruction

Memory Matrix (#5)

	Purpose	Information Sources	Focus	Used by
Course Grading				
Course-embedded Assessment				
Classroom Assessment				

CAT #5 & Learning

- Useful for assessing student recall and basic comprehension of facts and principles in courses with high informational content
- Helps students to learn how to manage, organize and learn large amounts of information
- Learning requires focused attention, and awareness of the importance of what is to be learned.
- Can be used to assess students ability to make connections if students are allowed to construct their own matrices from scratch rather than filling in one provided by the instructor
- Can also be used as a needs or pre-instruction assessment

Feedback

- What methods do you use in your class to monitor student learning?
- Non-verbal clues
- Homework
- Quizzes

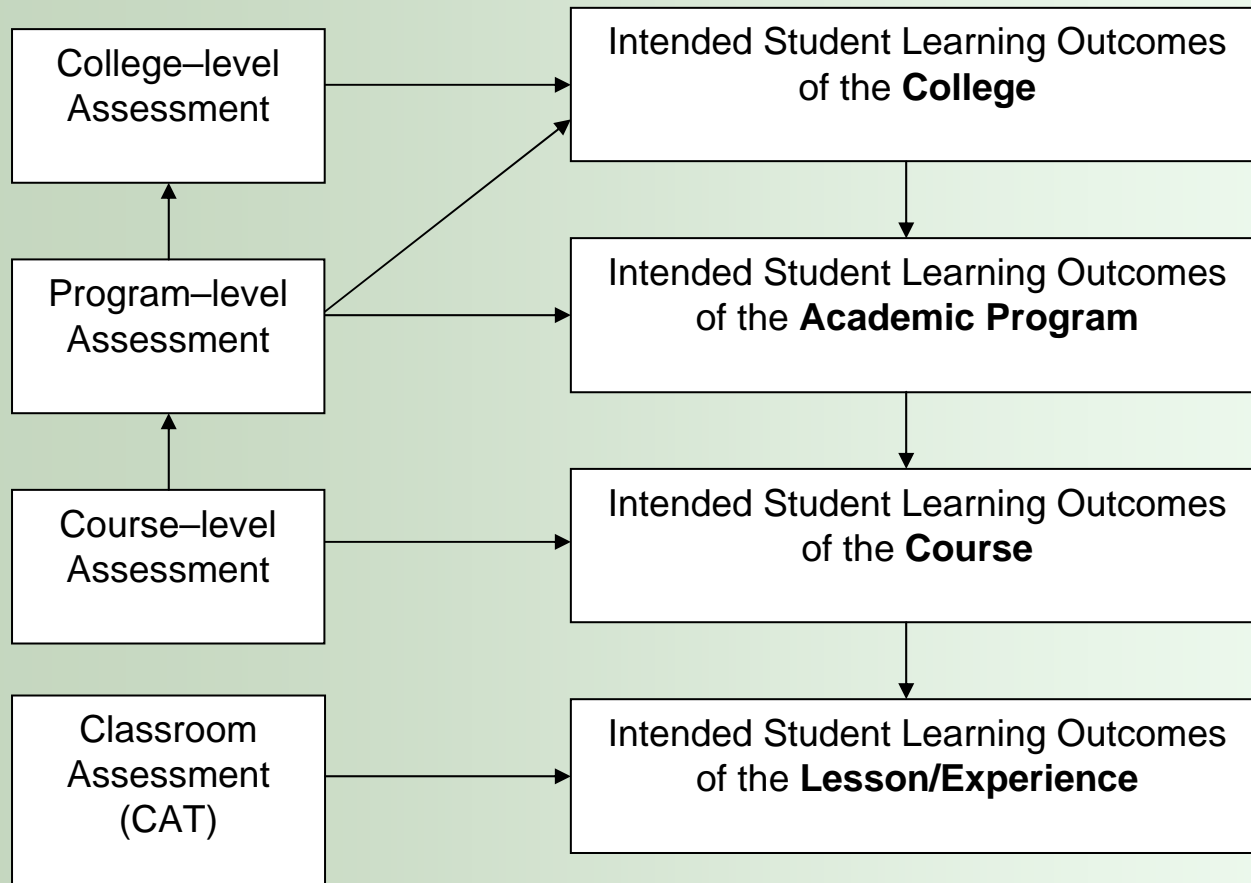
Classroom Assessment Techniques (CATs)

- Tools used to gather limited, focused feedback on student learning
- Usually ungraded and anonymous
- Used to assess but also to reinforce and reteach
- May also be used by an instructor as part of a personal course research project

Concept Map (CAT #16)

- How does course-embedded assessment and classroom assessment relate to other types of assessment?
- Draw a concept map showing the relationship between levels of student learning outcomes in a higher education institution and levels of assessment.

Concept Map: Relationship between levels of student learning outcomes and levels of assessment



CAT #16 & Learning

- Information organized in personally meaningful ways is more likely to be learned, retained, and used.
- Students will organize information no matter what we do
- Concept maps provide a chance to assess students ability to associate new concepts with previously learned information; synthetic thinking
- Feedback allows the instructor to model how to organize information in ways more similar to the ways experts in the field organize it
- Give students a chance to compare their maps with peers and experts and make intentional changes; increase their metacognition (awareness, understanding, and control of their own learning) by giving them a tool to analyze and control the connections they make

7 Basic Assumptions of Classroom Assessment

1. The quality of student learning is directly, although not exclusively, related to the quality of teaching. Therefore, one of the most promising ways to improve learning is to improve teaching.
2. To improve their effectiveness, instructors need first to make their goals and objectives explicit and then to get specific, comprehensible feedback on the extent to which they are achieving those goals and objectives.
3. To improve their learning, students need to receive appropriate and focused feedback early and often; they also need to learn how to assess their own learning.

7 Basic Assumptions of Classroom Assessment

4. The type of assessment most likely to improve teaching and learning is that conducted by faculty to answer questions they themselves have formulated in response to issues or problems in their own teaching.
5. Systematic inquiry and intellectual challenge are powerful sources of motivation, growth, and renewal for college teachers, and classroom assessment can provide such challenge. (*Boyer's definition of scholarly research*)

7 Basic Assumptions of Classroom Assessment

6. Classroom assessment does not require specialized training; it can be carried out by dedicated instructors from all disciplines.
7. By collaborating with colleagues and actively involving students in classroom assessment efforts, faculty (and students) enhance learning and personal satisfaction.

Characteristics of Classroom Assessment

- Learner-centered
- Instructor-directed
- Mutually beneficial
- Formative
- Context-specific (adapt)
- Ongoing
- Rooted in good teaching practice

7 Principles of Good Practice in Undergraduate Education

- Encourages student-faculty contact
- Encourages cooperation among students
- Encourages active learning
- Gives prompt feedback
- Emphasizes time on task
- Communicates high expectations
- Respects diverse talents and ways of learning

Chickering & Gamson

<http://aahebulletin.com/public/archive/sevenprinciples1987.asp>

Good Teachers & Good Teaching

9 Key Characteristics that Faculty and Students Agree On

- Knowledge of the subject
- Course preparation and organization
- Clarity and understandability
- Enthusiasm for subject and teaching
- Sensitivity to and concern with students' level and learning progress
- Availability and helpfulness
- Quality of examinations
- Impartiality in evaluating students
- Overall fairness to students

Feldman, K.A. (1988). *Effective college teaching from the students' and faculty's view: matched or mismatched priorities?* Research in Higher Education, 28(4), 291-344

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Goals

- Goals are ends we work toward, destinations we set out for, results we strive to achieve.
- Reference points that we use to measure our progress and to determine whether we are headed in the right direction
- Without clear goals it is hard to assess the effectiveness of our efforts or realize when we are off course, how far off we are, and how to get back on course
- To assess and improve instruction, faculty must first clarify exactly what they want students in their courses to learn

Teaching Goal Inventory

- Self-assessment of teaching goals
- Purposes:
 - To help instructors to become more aware of what they want to accomplish in their courses
 - To help faculty locate Classroom Assessment Techniques they can adapt and use to assess how well they are achieving their teaching and learning goals
 - To provide a starting point for discussions of teaching and learning goals among colleagues

Teaching Goal Inventory

- 52 general goal statements (use Resource B instead of Chapter 2)
- Choose a single course to focus on
- Rate each goal according to how important its achievement is in that particular class (essential, very important, important, unimportant, not applicable)
- Determine how many essential goals you have and which of the six clusters they tend to emphasize most in teaching that course

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Angelo's 7 Axioms of Classroom Assessment

1. Don't ask if you don't want to know.
2. Don't ask students for feedback unless you can and will respond to it.
3. Don't collect more data that you can easily and quickly turn into information.
4. Don't simply adopt methods and techniques from others, adapt them.

Angelo's 7 Axioms of Classroom Assessment

5. Ask first: Which technique is appropriate to answer your question; not which questions are appropriate to fit the assessment technique.
6. Always ask: How will knowing the answer to this question help me improve student learning? (If you can't answer this question, the assessment is probably not worth doing.)
7. Remember: If an assessment is worth doing, it's worth taking the time to teach students how to do it well.

Linking TGI and CATs

- Use your highest-ranked goal cluster and Table 6.3 (p. 113-114) to identify potential CATs
- Chapter Four provides information on transforming very general goals from TGI into course-specific questions
- Or...

Introductory CATs

- Flexible and easily adaptable, and simple and quick to apply
- CAT #6 The Minute Paper
- CAT #7 The Muddiest Point
- CAT #13 The One-Sentence Summary
- CAT #23 Directed Paraphrasing
- CAT #24 Applications Cards

The “Muddiest” Point (CAT #7)

- “What was the muddiest point in this workshop?”
- In other words, what was least clear to you?

CAT #7 & Learning

- Learners need feedback on their learning, early and often, to learn well; to become independent, they need to learn how to give themselves feedback.
- Quick method for discovering which areas are most difficult for students
- Learners must self-assess what they do not understand and articulate it
- Use of anonymous, written message helpful for students who are hesitant about asking questions during class
- Muddy point logs; email

The One-Sentence Summary (CAT #13)

- To create a one-sentence summary, first answer all of the questions below in relation to your topic. Then weave your separate answers into one (or two) summary sentences.
- Topic:
- Who?
- Does/did/will do what?
- To/for whom/what?
- When?
- Where?
- How?
- Why?

The One-Sentence Summary (CAT #13)

- Topic: Classroom assessment
- Who? Teachers
- Does/did/will do what? assess
- To/for whom/what? Their students' learning
- When? Regularly during the semester
- Where? In their own classrooms
- How? Using CATS and any other appropriate tools and methods of inquiry
- Why? So that they can understand and improve their teaching effectiveness and the quality of student learning

The One-Sentence Summary (CAT #13)

Teachers assess their students' learning regularly during the semester in their own classrooms, by using CATs and any other appropriate tools and methods of inquiry, so that they can understand and improve teaching effectiveness and the quality of student learning.

CAT #13 and Learning

- Active learning is more effective than passive learning.
- Students are actively involved in an information “chunking” technique – condensing it into smaller, inter-related bits that are easier to process and recall.
- Faculty can use it to assesses students’ skill in synthesizing course-related information.

Directed Paraphrasing (CAT #23)

- In 1 or 2 concise sentences, define what classroom assessment is. Write a definition that will make sense to your colleagues, one that faculty in any discipline will understand.

Classroom assessment is...

CAT #23 & Learning

- Active learning is more effective than passive learning.
- Having students explain something to others that they have just learned helps them learn it more effectively.
- Can be used to assess how well students have understood and internalized what they have learned.
- Can also be used to assess how well students can translate their learning into a form others can understand.
- Paraphrase should be directed to a specific audience (clients, patients, students in other courses or a lower-level course, etc.)

Applications Cards (CAT #24)

- Take a moment to recall the ideas, techniques, and strategies discussed during this workshop – and those you’ve thought of – up to this point. Quickly list as many possible applications as you can. These are merely possibilities. You can always evaluate the desirability and/or feasibility of these application ideas later.

Some interesting Ideas/Techniques from this workshop	Some possible Applications of those ideas/techniques to my work

CAT #24 & Learning

- Motivation to learn is alterable; it can be positively or negatively affected by the task, the environment, the teacher, and the learner.
- Conditional knowledge – knowing the when and where for applying what has been learned
- Students are more likely to learn if they see value in it; if they learn to link what they are learning with “real-world” applications
- Liberal arts education
- Make sure feedback is provided and examples of good applications provided
- Can provide a starting point to discuss ethics and morals if potentially dangerous applications are advanced

Using CATs

- If a CAT does not appeal to your intuition and professional judgment as a teacher, don't use it.
- Don't make classroom assessment into a self-inflicted chore or burden. Start simple.
- Don't ask your students to use any CAT that you haven't previously tried on yourself.
- Allow for more time than you think you will need to carry out and respond to assessment.
- Make sure to "close the loop". Let students know what you learn from their feedback and they can use that information to improve their learning.

Getting Started

■ Planning

- Select one course that is going reasonably well
- Select a class session
- Select a CAT
- Read through the CAT's complete description in Chapter 7, 8 or 9

Getting Started

■ Implementing

- Let students know beforehand what you are going to do and why you are asking them for information
- Inform students about relationship to grading process
- Make sure students understand procedure
- Allow a little extra time for responding
- Collect and read through them as quickly as possible
- Count on spending from 30 minutes to an hour reviewing responses (less as you get more experienced)

Getting Started

■ Responding

- Think through what, how, and when you will tell your students about their responses
- Feedback could be oral or handout
- Let students know what adjustments, if any, you are making in your teaching as a result of the information they provided
- Inform students about any changes they can make in their behavior, in response to the CAT feedback, to improve learning
- Student responses will improve over time and if they know their participation can actually make a difference in your teaching and their learning

Costs & Benefits

■ Costs

- Time: in and out-of-class
- Content coverage: review, revisit, reteach
- Raise more questions than answers, lack of closure

■ Benefits

- Increased collegiality when undertaken as part of a group
- Positive student responses and more active involvement in learning
- Intellectual excitement

Instructors who were most satisfied and most likely to continue using CATs...

- Dedicated modest amounts of time to classroom assessment, both in and out of class
- Spent some of that time discussing their projects with other teachers
- When it became necessary to trade breadth for depth, cut as little course content as possible and made sure only peripheral material was sacrificed
- Pursued assessment questions that, though challenging, were focused and limited enough to provide useful feedback

The Minute Paper (#6)

Please answer the following questions in 1 or 2 sentences:

- What was the most useful or meaningful thing you learned during this workshop?
- What important question(s) remain in your mind?

CAT #6 & Learning

- Learning requires focused attention, and awareness of the importance of what is to be learned.
- Instructors can model how experts in the particular discipline distinguish major points from details while providing feedback to the class.
- Students also learn to self-assess by going through a process of recall, evaluation, and questioning their level of understanding.
- Can also be used at beginning of class as a warm up activity.