Assessment in the Classroom Certificate Series

Part 2: Formative Assessment

Tools for Formative Assessment in the Classroom

Most Classroom Assessment Techniques (CATs) are designed for formative use. For additional CATs, see *Classroom Assessment Techniques* by Angelo and Cross or search online. This handout includes a few ideas to get your started.

It may be helpful to have help or feedback from colleague(s) when developing tools specific to your discipline. Additionally, always take the time to explain your reasons for using assessment techniques to students beforehand, and share when and how you plan to respond to their feedback. Ensure students understand whether their responses on formative assessments will be included in their course grade or if they are only being used to help you as an instructor.

Assess Yourself

Having students rate their own level of learning can help them not only think about the course material more deeply, but also understand what would be required for them to move to the next level. Assess Yourself criteria are used extensively in K-12 schools, but it can easily be adapted for use in the college classroom. Once students are used to using this assessment technique, it will be a simple and quick tool for gaining information about your students' level of knowledge, skills, and abilities.

Use the example below to create a discipline- or lesson- specific version of the Assess Yourself framework.
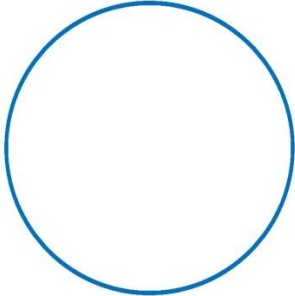
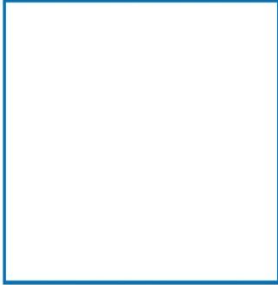| Assess Yourself Which statement best describes you?	**Novice** I'm just starting to learn this and I don't fully understand it yet.	**Apprentice** I'm starting to understand, but I probably need someone to coach me through it.
	Practitioner I can mostly complete this alone, but I may need occasional help.	**Expert** I understand this well and could teach it to someone else.

Circle vs. Square

Use the Circle vs. Square technique to gain better knowledge about both the items your students know well and those that are causing difficulty.

This is anonymous – do not put your name on this form. What topic is still unclear? What topic do you now understand? Please share in the shapes below.

What question keeps circling? I'm still confused about. . .

What are you totally square on? I now understand. . .

Adapted from Schantz, Rebecca. *Your CATs Starter Kit* (booklet distributed at the 2005 Illinois Mathematics Association for Community Colleges (IMACC) Annual Conference)

Helping vs. Hindering

Use this form to determine what is helping your students in your course as well as what is hindering their learning. Knowing how your students are learning (or why they are having trouble learning) can help you better develop or adapt your lesson plans and course activities.

What is HELPING your learning? *What is HINDERING your learning?* *This is anonymous – do not put your name on this form.* *Please take a few minutes to fill out the chart below.* *Try to be as specific as possible.*		
	What's Helping?	**What's Hindering?** **(Obstacles)**
Instructor		
Myself		
Classmates		

Journals

Learning and Response Logs are two more specific types of journals that can be used as formative assessment. In Learning Logs, students reflect on the material they are learning, including their thoughts as they are learning something new as well as any questions that they need to have clarified. Students can then make connections, think about their learning goals, and reflect on their own learning processes. In Response Logs, students are given the opportunity to respond to questions, ask their own questions, collect information about the text, and reflect on what they have read.

Adapted from: http://wvde.state.wv.us/teach21/LearningResponseLogs.html

Laundry Day

In Laundry Day, students can evaluate their own learning in preparation for an exam, and then use that evaluation to continue preparing for the exam. Students use their homework or notes as evidence of where they belong, selecting from Tide, Gain, Bold and Cheer. Their chosen "detergent" defines what types of exercises they will be given to prepare for the exam. Cassandra Erkens defines the categories in the following way:

• Tide – students select this detergent if they are believe the tidal wave of information might drown them. In the Tide corner the learning activities involve a comprehensive review of the information and/or an activity that might help the learners experience the information in a different way. Students from the Cheer group often times hang out here to mentor and find creative ways to represent the information that their peers might better understand.

• Gain – students select this detergent if they understand the basics of the concepts taught, but seem to be missing some of the nuances or finer details. Learning activities in this corner involve investigation as students identify the details around which they are unsure and then examine the text, homework examples, internet sources and other classroom resources to gain their answers.

• Bold – students select this detergent if they are fairly confident they will pass the unit exam, but still have a few niggling questions. Often times, Bold activities involve creating possible review activities for future classes or test questions for the teacher to consider and then challenging each other, as they might in a game show, with completing their own activities.

• Cheer – students select this detergent if they are certain they will be successful on the exam. Cheer activities involve enrichment activities to extend and refine their learning. One such activity involves helping the students in the Tide section. Interestingly, a majority of the students in this category select the option of helping those in the Tide category.

From Erkens, Cassandra, "Scenarios on the Use of Formative Classroom Assessment"
http://fai.tie.wikispaces.net/file/view/1a_WY+State+Conf+HOs.pdf

Memory Matrix

In a Memory Matrix, students complete a table in which row and column headings are complete but cells are empty. The rows and columns provide course content or topics that students need to identify and distinguish from other content or topics. For example, an introductory economics instructor may use the Memory Matrix below:

	Unit of Analysis	**Demand depends on**	**Supply depends on**
Macroeconomics			
Microeconomics			

Students fill in the blank cells with appropriate information within the time you have allotted (typically 5-10 minutes). Instructors can use the results to gauge students' comprehension of course content and determine if any of the related topics should be reviewed.

Adapted from: Angelo, T. A. & Cross, K. P. (1993). *Classroom Assessment Techniques*. San Francisco, CA: Jossey-Bass

Muddiest Point

The Muddiest Point CAT requires little preparation time for the instructor and only a few minutes of time for the students. It is used to assess what students are having trouble understanding during a class. It provides the instructor with feedback on items that are confusing, and it can be used at different intervals.

The instructor can use the Muddiest Point technique when covering complex or confusing information, before starting a new subject, or at the end of a class. The technique basically consists of the instructor asking the students to write down or post on a class discussion board what they have had trouble understanding during the class: "What is the muddiest point in this session?" If asking the question during the class, the instructor can gather the papers and discuss some of the items mentioned.

Verbal answers can also be used instead of written responses to facilitate discussions on the muddiest points. If the muddiest point technique is used at the end of a class, papers can be taken up, reviewed, sorted by subject, and discussed at the beginning of the next class. If an electronic form is used, students can be encouraged to respond outside of class to classmates, clarifying points they understood.

Adapted from: Angelo, T. A. & Cross, K. P. (1993). *Classroom Assessment Techniques*. San Francisco, CA: Jossey-Bass

Response Cards

Instructors can use flashcard sets for a quick check of understanding in the classroom. Each student in the class is given a flashcard set which can be used to indicate an answer to a question posed by the instructor. Questions and up to four possible answers can be embedded on a PPT slide, written on the whiteboard, or projected on the document camera. Students are told to hold up their responses without looking at their classmates' responses. The instructor can easily scan the response cards and see if the majority of students are answering the question correctly. If not, further instruction or guided practice may need to be included in the lesson.

These cards may also be used for True-False and/or Agree-Disagree questions by using the back of the green/red cards.

Think Pair Share

Think Pair Share is a summarization strategy that involves three basic steps:

Think: Tell students to ponder a question or problem. Give them time to think about the answer, and do not allow them to share their thoughts (yet).

Pair: Individuals are placed in groups of two to discuss their answer or solution to the problem. During this step, students may wish to revise or alter their original ideas.

Share: Students are called upon to share with the rest of the class.

Adapted from: http://wvde.state.wv.us/strategybank/Think-Pair-Share.html