

Spring Training for New TAs

Assessment “Toolkit”

1/15/09

Here is a list of assessment tools that you might find useful. Remember that every assessment method requires adjustments and fine-tuning – if a tool doesn’t do just what you want it to, tweak the language or format to see if you can improve the value of the feedback. Also, keep good records of your teaching and assessment. Think of assessment of teaching as a career-long research project – use assessment data to demonstrate improvements in your teaching and their learning. And always come back and share the results of the assessment with your students: complete the feedback loop!

Tool: Background Knowledge Probe

To Employ: Select a few important concepts that you will cover in the course of the semester, and ask students to circle one of the following responses for each concept:

- a. I’ve never heard of X (X= a term, concept, debate, etc.) before
- b. I’ve heard of X, but I really don’t understand what it means
- c. I have an idea of what X means, but I don’t think I could explain it
- d. I know exactly what X means, and would feel comfortable explaining it

Pros: This is a tool that every teacher should use! In order for you to be an effective teacher, you need to know your audience, and the knowledge probe is an easy way to assess your students’ knowledge/skill level coming into the class. Don’t assume that because they have met the prerequisites they have the skills necessary to succeed in your class!

Cons: Takes a few minutes in the first session, and if students find themselves choosing “a” for each answer, it might suggest to them that they are unqualified for the class (reassure them that you aren’t expecting them to know the terms – you just want to insure that you’ll get everyone on the same page at the outset of the semester).

Tool: Minute Paper

To Employ: Ask students to identify and explain a central theme they learned from the day’s lesson. Analyze the results to assess the breadth and depth of the class’s learning on that day.

Pros: Quick and easy, good for “in-time” assessment of your students’ grasp of one day’s worth of content, or a particular concept.

Cons: Not great for large (30+) classes. It’s difficult to get in-depth with this tool, and because it is overused, or ineffectively used by so many teachers, some students have been trained to jot something down with little or no thought.

Tool: “Muddiest Point”

To Employ: After class, ask students to identify, on a 3x5 card, the one concept that was most difficult to understand in the day’s lecture/discussion.

Pros: You can scan cards in a hurry, and almost immediately identify problems that confronted a large number of your students. Bring this back to the class in the next

session and correct the problem. Works well in large classes.

Cons: There is a danger in overusing this tool – you don't want to suggest that your lectures are filled with "muddy points." In addition, students who don't really have problems might feel compelled to write any old thing, just to answer your call for feedback.

Tool: Directed Paraphrasing

To Employ: Ask students to summarize, in a concise passage, a critical point that has been made in class (or last week's class). Specify the audience to whom the summary should be addressed; for example, "Construct a definition of Neoclassical architecture that would make sense to a builder."

Pros: You can scan a slew of the cards in just a few minutes to determine whether or not they grasped a concept, and because you have, in essence, asked them to "teach" the concept to a hypothetical audience, they should gain a greater understanding of the topic.

Cons: Many students struggle with the notion of brevity, so a number of submissions may be much longer than you'd wished them to be. In addition, this is one of those "at the end of class" activities, but it takes considerably more time than a "muddiest point" or minute paper exercise.

Tool: "What was the most important thing you learned?"

To Employ: Same principle as the minute paper, but you are asking specifically for the single most important point from the day's class.

Pros: One hopes that YOU knew what the most important point of the day was; this is a quick and easy opportunity to find out if your students agree. Works well in large classes.

Cons: You might not want to do this after every class. There is always the risk that your students will come to view it as busywork – especially if you don't come back and report on the results of the assessment.

Tool: Interview

To Employ: It's easy – just talk to your students, individually or in small groups of 2-4, and ask them questions that either get at their mastery of a topic, or address your teaching style (depends on what you want to know!). You can do so after class, in office hours, wherever you happen to run into them.

Pros: The depth of feedback on your teaching is likely to be much greater than that which comes from minute paper-type assessments. Students also appreciate the message that you are personally and professionally interested in what they have to say.

Cons: Students may be reticent to speak their true minds. In addition, you run the risk of assuming that one student's attitudes/perspectives/opinions can be extended to the class as a whole. Always bear in mind that one opinion, whether given by a great student or a poor one, is just that – ONE opinion. (Obviously, the more interviews you conduct, the less likely you will be misled by the results.)

Tool: Instructional Diagnosis

To Employ: Take 10 minutes out of a class period and ask students to reply to questions such as “What is helping you learn in this class?” or “What is interfering with your learning, and how could we address the problem?” (I prefer the more positive phrasing of the question, but experiment to find what works best for you). This is really an assessment of your teaching more than an assessment of their learning.

Pros: Quick and easy to analyze. It solves the “you jangle the change in your pocket” and “you stand in front of the chalkboard when I’m trying to take notes” kind of questions, and brings to light the little quirks that can drive students crazy.

Cons: It brings to light the little quirks that can drive students crazy, and if you are unwilling or unable to address those quirks (let’s say a student can’t stand your voice!), it will only make them crazier if you don’t change after the feedback is given. In addition, there is a risk of taking too personally the responses of the students (this is true for so much of assessment in general).

Tool: RSQC2

To Employ: “Recall, summarize, question, context, comment.” Ask your students to recall the major point of a lecture, summarize its significance, share a question that remains unanswered in their minds, provide the context for the major point (how does it fit into the course content as a whole?), and comment on the point, or on any other aspect of the course.

Pros: This is an expanded version of the minute paper. It takes more class time for them to fill out, but it also provides you with a LOT more information about what they have learned, and the “context” part of the equation forces them to make connections between one concept/theme/topic and the course objections as a whole.

Cons: If you have them do it in class it takes at least 10 minutes to complete, and you will spend considerable time analyzing the results. Works best in a class of fewer than 25 students.

Tool: SALG (Student Assessment of Learning Gains)

To Employ: This tool can take many forms, but in essence you’re asking students to check a value for each item on a form. For example, a statement might read: “The pace of the course helped my learning: a) not a bit b) a little bit c) some d) quite a bit e) a whole lot. Provide space for them to make additional comments, and a “NA” box if there are any statements that might be not applicable to all students.

Pros: You can give this kind of form at the end of a course, or better still, in the middle of a semester to assess your students’ progress. Because it can be administered on a scantron-like form, the data can be collected (and analyzed) quickly – there won’t be a lot of prose to read through. Works well in large classes.

Cons: Can take awhile to identify the questions you really want answered – this is not the kind of assessment form that you can whip up the night before.

Tool: Conceptests

To Employ: Ask a question about a key concept during class and offer two or more possible responses. Then have students “vote” on the right answer with a show of hands. If there is considerable disagreement over the correct response, have students debate the answer with their neighbors, then get their attention again and ask for another show of hands (hopefully more students now agree on the right answer).

Pros: Promotes a positive classroom environment by giving students a chance to interact with (and teach) each other. This is also the rare tool that works better with large (40+ students) classes. You don’t have to incorporate the student debate if you don’t see a need to – just ask them to vote on a question, and if most are right, give a short explanation, if most are wrong, explain the concept in more detail.

Cons: Takes a good deal (at least 10 minutes) of class time. Also, if you are going to use the student debate component, you’ll need to emphasize the need to sit close together – something students don’t seem to want to do!

Tool: Concept Mapping

To Employ: Ask students to construct, either individually or in groups, a diagram of a critical concept that will be addressed in class. The concept will be at the top of the page, with subconcepts fanning out below (like tree roots).

Pros: Gives visual learners a chance to see the depth and breadth of a particular concept, and gives you a chance to analyze their understanding of the same. It helps students get a sense of the “big picture” of a topic, and is perhaps most effective at the outset of a semester or a module.

Cons: Students will probably require some training in how to create the map, and this exercise does not necessarily give them any problem-solving skills. It can also require you considerable time to read through, analyze, and respond to the results of their work – especially if the maps reveal many misconceptions (of course, you’ll want to know what those misconceptions are anyway, so it may well be worth the cost).

Tool: Portfolios

To Employ: Have your students build, over the course of a semester, a collection of papers, projects, tests, etc., that illustrate their increasing knowledge and mastery of the subject matter. As opposed to most exams, which are intended to show what a student DOESN’T know, the portfolio gives them an opportunity to show what they’ve learned.

Pros: Lends itself well to a “deep approach” to content – students are engaged with the project throughout the semester. In addition, it puts a great deal of responsibility on students to demonstrate that they know their stuff.

Cons: Difficult to make them work in large classes. Portfolios take a LONG time to evaluate – if this is going to be a big part of your assessment strategy, prepare yourself for a considerable time commitment. If you are going to grade the results, be sure that you have developed a rubric that clearly spells out the standards by which the portfolios will be judged.

Tool: Anonymous Assessments

To Employ: Have each student select their own "secret code" – two letters and four numbers (emphasize that they should avoid combinations such as AA0000 or ZZ9999). Then you can have them turn in, on 3x5 cards, comments about the class, your teaching, their reactions to an assignment, etc, with their code number on the back. You can read the comments and respond in writing, then put the cards out, code numbers up, for the class to retrieve.

Pros: This is an unusual tool – it allows your students to preserve their anonymity (and thus, it is hoped, their truthfulness), and simultaneously permits you to respond directly to their complaints and concerns. It also might reveal students who have an axe to grind, and gives you a chance to respond to the source of their animosity.

Cons: Some students will not take seriously the opportunity you provide (this can be alleviated by emphasizing that YOU will take seriously their feedback). In addition, it takes class time for everyone to pick their code, collect their returned cards.