Moving Beyond Multiple Choice

The Epidemic of "Objective" Testing

Another semester begins. Students wait expectantly as professors review syllabi, learning objectives, required activities and assignments, and the procedures that will be used to assess their learning. In a vast majority of these classrooms, one of the primary means used to assess student learning will be some form of testing in the guise of quizzes and examinations. For many of the over 15 million students enrolled in degree-granting institutions during the 2007-2008 academic year, it is very likely that written examinations will be a significant factor in determining the degree to which they have "learned" the required course content (often interpreted as their final grade). Extrapolating from the work of Milton (1986), if each of these students are enrolled in an average of eight courses per year, and each course involves an average of two tests, there will be over 240 million tests given during the 2007-2008 academic year. Testing is alive and well in higher education.

Given the rate at which tests are being used in college classrooms, one might be inclined to assume that this aspect of the educational process is both highly esteemed by faculty members and highly developed from a technical perspective. There is, however, a significant body of research and rhetoric indicating that college faculty have a general sense of disdain for the rigors of test development and implementation (Burton & Miller,1999; Wergin, 1988). Although we are able to articulate what testing should be (e.g., reliable, valid, related directly to student learning and course outcomes), the gap between "what we say" and "what we do" is often quite substantial.

Angelo, T. A. & Cross, K. P. (1993). *Classroom assessment technique.* San Francisco: Jossey-Bass.

Burton, R. F. & Miller, D. (1999). Statistical modeling of multiple-choice and true/false tests: Ways of considering, and of reducing, the uncertainties attributable to guessing. *Assessment and Evaluation in Higher Education, 24*(4), 399-412.

McDaniel, T. R. (1994). College classrooms of the future. *College Teaching, 50,* 148-150.

Milton, O. (1986). *Will that be on the final?* Springfield, IL: Charles C. Thomas.

Wergin, J. F. (1988). Basic issues and principles in classroom assessment. In J. H. McMillan (Ed.), *Assessing student's learning* (pp. 5-17). San Francisco: Jossey-Bass.

The Future of Classroom Assessment

The debates wage on. Advocates for "alternative assessment" continue their systematic attacks on "traditional assessment." Advocates for traditional assessment continue their quest for the perfect test. The end is nowhere in sight. What each group seems reluctant to acknowledge is the possibility that there is an integral role in higher education for both traditional and alternative assessments—that is, a "standard of judicious use." Rather than spending energy in the defense of a position, educators would be well advised to generate and refine a decision-making model that will assist faculty in determining those assessment techniques that are most appropriate for the content, skills, and applications being taught.

There have been several attempts to create criteria for "good" testing practice.   Angelo and Cross (1993) have proposed that classroom assessments should be teacher-directed, mutually beneficial (i.e., students in learning, faculty in the assessment of teaching), formative, context-specific (i.e., responsive to the needs and characteristics of students, teachers, and disciplines), ongoing, and rooted in good teaching practice. Wergin (1988) asserts that good practice in assessment results in 1) Improved teaching and learning, 2) A focus on what is maximally relevant, and 3) A mechanism for informing students about what they know or can do.

McDaniel (1994) has proposed that in the classroom of the future, professors will need the skills necessary to:

- Define goals of instruction as measurable outcomes
- Concentrate on the kinds of outcomes — critical thinking, problem solving, creativity — that will serve the future citizen in a changing world
- Construct student evaluation opportunities that call for an integrating response
- Adjust time so that mastery is the goal
- Work to assure student success by using criterion-based rather than norm-based evaluation

A Variety of Approaches to Classroom Assessment

Imagine This

Imagine that you have just opened an email from your dean advising that a new assessment policy will be implemented on campus this semester. This new policy eliminates the option of using any of the traditional objective test formats: multiple choice, true/false, matching, and fill-in-the-blank. The collective scream that you hear off in the distance is the response of your colleagues to the thought of eliminating objective tests from their syllabi. The challenge that lies ahead, however, is for you and your colleagues to create a new battery of assessment strategies that go beyond what has been the bread-and-butter of classroom assessment on your campus.

I know this circumstance could be a frightening prospect. We all have a tendency to become rather content and comfortable in using familiar assessment techniques with our students. But the question we must continually ponder is whether those comfortable and efficient strategies are the best ways to assess student learning. Stop for a few moments and consider your response to the dean's email.

What Are the Options?

Clearly there is a role for objective testing in the college classroom. What seems to be at issue, however, is the degree to which faculty members rely on this approach as the *only* way to assess student learning. In the extreme, we all know of classes where the assessment menu consists of two tests and a final: all multiple choice, true/false, or matching. Wouldn't it be a wonderful thing to enrich that classroom, and the quality of student learning, with a variety of other evaluative experiences? Davis, Wood, and Wilson (1983) offer several alternatives for assessing the quantity and quality of student learning that go well beyond multiple choice:

- Writing a case study
- Engaging in and reporting on a fieldwork experience
- Leading a discussion panel
- Serving on a discussion panel
- Keeping a journal or log of course-related ideas
- Writing up thoughtful evaluations of several lectures
- Creating instructional materials (study guides, exam questions, or audiovisual materials) on a particular concept or theme
- Undertaking an original research project or research paper
- Reviewing the current research literature on a course-related topic
- Keeping a reading log that includes brief abstracts of the readings and comments, applications, and critiques
- Completing problem-solving assignments (such as designing an experiment to test a hypothesis or creating a test to measure something)

Try one or more of these very soon!

Davis, B. G., Wood, L., & Wilson, R. (1983). *The ABCs of teaching excellence*. Berkeley: Office of Educational Development, University of California.

Open Source Portfolios

We are all familiar with the degree to which student rely on the quick and easy variety of "open source" materials found on the Internet (e.g., Wikipedia.org and a variety of other wiki hosts). This relatively new forum provides the opportunity for individuals to create their own encyclopedic entries on topics of their choosing. The downside of this venture is that information portrayed as "the truth" may simply be the writer's opinion on the topic or their own version of the facts. Some faculty have responded to this circumstance by directing students not to use Wikipedia or similar sites as a source of information when writing papers or in other scholarly pursuits.

Why not capitalize on the "wiki" frenzy by asking your students to post a wiki page on a topic related to your course? The process for creating a wiki page is very easy. In the parlance of wiki, a " wiki farm" is a server or a collection of servers that provide wiki hosting, or a group of wikis hosted on such servers.

Help in starting a new wiki page can be found at:
http://en.wiktionary.org/wiki/Help:Starting_a_new_page
Some things to consider:

- Create a rubric that underscores your expectations for this project.
- Have students work in groups on topics related to your course content.
- Encourage students to visit the work done by other groups.
- Involve students in critiquing their own work and the work of the other groups.