An Analysis of Traditional Classroom Assessment Techniques and a Discussion of Alternative Methods of Assessment.

From primary grades, students are exposed to both standardized and classroom tests. While teacher-made classroom tests may contain multiple choice, constructed response, or essay items, standardized tests, on the other hand, primarily rely on the multiple-choice format. Standardized tests are easy and inexpensive to administer and score, amenable to item analysis, and adaptable to various subject domains. They are criticized, however, for encouraging superficial learning, allowing students to get correct answers by guessing, and their susceptibility to coaching and test wiseness. Responses to such criticisms and resulting changes in standardized testing practices have implications for classroom assessment. While traditional assessment methods have their place in the educational system, alternative assessment procedures can foster greater learning in the test taker and more complete measurement for the instructor. For example, in a college Physiological Psychology class, oral presentations are used to assess students' knowledge of the central nervous system. In a Psychology of Women course, response journals, in which students write spontaneous thoughts, questions, and reactions to course content, are graded on the students' effort and thoughtfulness. The Psychology of Women course also involves a group project. The class is divided into several groups, each of which addresses the same topic from a different perspective. Group presentations and final papers are graded, which each member receiving a group grade and an individual grade. These alternative evaluation methods are best considered as complementing rather than replacing more traditional test and assessment formats.
An Analysis of Traditional Classroom Assessment Techniques and a Discussion of Alternative Methods of Assessment

Stacey Beth Zaremba
Moravian College

Matthew T. Schultz

Paper Presentation
The 7th Annual Conference on Undergraduate Teaching
of Psychology: Ideas and Innovations
March 24-26, 1993
Ellenville, New York
An Analysis of Traditional Classroom Assessment Techniques and a Discussion of Alternative Methods of Assessment

Stacey Beth Zaremba
Matthew T. Schultz

Contemporary classroom assessment, like assessment in general, has undergone substantial change in recent times. At least part of the reason for this change can be traced to an increasing call for accountability in the educational system. That is, to provide evidence to policy makers, administrators, and instructors that students are receiving a quality education (Moss, Beck, Ebbs, Matson, Muchmore, Steele, Taylor, and Hertson, 1992). In addition, test scores are often utilized as a major criterion in making educational decisions beyond evaluation of the student. As a result, test results, usually obtained from standardized tests, are used not only to assess student learning and progress, but also (frequently wrongly), to evaluate instructors, schools, and instructional methods, to name but a few. Finally, it has been repeatedly demonstrated that assessment influences both what students learn and
teachers teach (Crooks, 1988). While classroom tests are not subject to the same scrutiny as standardized tests, the changes being implemented in standardized testing programs can have an impact on how classroom assessments are developed and applied.

Students in primary as well as secondary school are typically exposed to two types of tests; standardized tests administered at one or more points in the academic year, and classroom tests designed to assess the learning of material taught during some time period. Unlike standardized tests, there is no 'traditional' test format for classroom tests, which are typically teacher-made tests. Such tests may contain multiple choice, constructed response and/or essay items (In addition to tests, classroom assessment may consist of quizzes, lab reports, and homework.) On the other hand, traditional standardized educational assessment has primarily relied on the multiple choice exam format. Multiple choice tests offer a number of desirable features; such tests are easy (and inexpensive) to administer and score, amenable to item analysis, and adaptable to a wide variety of subject matter domains. Some common critiques of such items are that they 1) encourage superficial learning of the material, 2) may be answered correctly by guessing, 3) are especially susceptible to coaching and test wisdom, and 4) do not lend themselves to assessing
all types of knowledge. In addition, such tests are costly to develop, and hence are not feasible for most classroom testing, with the exception being use of test batteries supplied with text books.

While these criticisms to multiple choice testing are most relevant to standardized testing, the resulting changes in standardized testing practices can have implications for classroom assessment, and lead to improved classroom assessment practices. Partly in response to the above mentioned criticisms of multiple choice tests, a number of modifications to existing large scale testing programs are planned. For example, the SAT will soon include constructed response questions, where test takers are required to supply the correct answer rather than select an answer from a series of alternatives. Another direction has been to utilize essay type examinations (which also includes short-answer type questions). While essay-type formats may allow for a more in-depth assessment of individual learning, they are also more time consuming and expensive to grade and more likely subject to rating bias. Yet another direction has been the development of large-scale, standardized performance assessments as complements to or replacements for standardized multiple choice exams. A criticism that has been levied at all assessment, but especially when tests are used for selection to school or for mastery testing, is
that teachers will frequently "teach to the test", and hence focus their efforts on those topics likely to be tested. This is a potential limit of all large-scale standardized testing programs, regardless of the specific item types utilized.

Most notably within the areas of personnel selection and personality assessment, there has been increasing awareness that assessment using multiple measures yields a better overall picture of an individual's strengths and abilities than reliance on a single test (Cascio, 1982). This awareness has also been the catalyst for the current use of standardized performance assessments, as well as portfolio assessment, in the schools. The awareness that multiple measures using diverse assessment devices can facilitate a higher quality assessment of the individual has provided some of the impetus for the changes currently being seen in large scale testing programs that were discussed above. While traditional assessment methods such as those mentioned above have and will continue to have their place in the educational system, there are a number of alternative assessment procedures that can foster both greater learning in the test taker as well as more complete measurement for the instructor.

The remainder of the paper will discuss three alternative assessment methods that have been
successfully utilized in upper-level psychology courses. Each of these can be easily used in conjunction with traditional classroom assessment methods. First, a discussion of the use of oral examinations to assess students knowledge of the central nervous system will be presented. This will be followed by a description of the use of response journals. Finally, the use of small-group presentations will be presented.

Students in the first author's Physiological Psychology class perform a two week laboratory on the neuroatony of the sheep brain. This exercise familiarizes the student with the terminology of neuroanatomy and with the general external and internal features of the brain (see Wellman, 1986). During the lab sessions the students spend their time studying and dissecting the brain. One can view the brain from several angles (i.e., dorsal view, the top surface of the brain). Students are given a list of structures that can be observed and studied from each angle. Once a structure is identified its basic function is discussed. Because learning the structure-function relationships of various brain sites can be a rather tedious task, using the sheep brain as a guide helps to maintain interest and excite the students.

Once the lab has been completed, an oral exam is administered to the students. During the exam the
students are required to 1) identify various structures on the sheep brain and 2) discuss the function(s) of the structures. Oral exams have been criticized for being both less objective than written exams and very time-consuming to administer (Ebel & Frisbie, 1986). Our experiences have led us to believe these criticisms can be overcome. One way an instructor can attempt to make the exam objective is by having a list of the essential responses for each item, which facilitates grading the answers as the students progress through the exam. This allows the instructor to give the student immediate feedback. While these exams do take a tremendous amount of time to administer, we believe there are several advantages to using oral exams in this manner, which makes it worth both the instructor’s time as well as the time of the students. First, it tests the students with the stimuli that were there when they learned the material. Oral exams also permit flexibility. That is, students can be asked to expand, clarify and justify their responses. Finally, students are required to express themselves orally rather than in the traditional written format. It has also been suggested that oral exams are likely to produce stress in students. Our students initially report feeling nervous about the idea of oral exams. However, we continue to find our students regarding this format as an enjoyable experience, after the fact. The students
are often amazed at how well they do relative to how they expected to do.

The students in the first author’s Psychology of Women course are required to keep a response journal. The journal contains the students responses to the weekly reading assignments. The students are told that the entries are not to be polished essays but rather their spontaneous thoughts, questions and reactions to the course content. Students are instructed to consider the following questions: do you agree/disagree with the author’s view and why; are you surprised and why; does the material contradict other material you have read; are you delighted or disgusted by what you’ve read and why? Occasionally the instructor will provide the students with a journal question to help focus their responses to the readings in a particular way. The students are required to make an extensive entry in the journal at least once a week, with interim notes on the readings as they are completed. The journals are collected and graded three times during the course of the semester. Students are notified that their journals are due for evaluation at least one week prior to the due date. The journals are evaluated and written feedback is provided along with the grade of either check minus, check, or check plus. A check minus is given for a journal that is incomplete and suggests that insufficient time was spent on the
A course like the Psychology of Women seems to elicit an array of feelings in students that other courses do not. Students generally care and have opinions about the research findings in this area. For example, the research findings regarding gender differences in cognitive abilities will have a greater emotional impact upon students than will research comparing the differences between operant and respondent conditioning. The Psychology of Women course can also bring up feelings of anger and resentment in students as they discover and become aware of instances of sexism and oppression. The journal is a wonderful outlet for these types of feelings. It allows the students to voice concerns and thoughts they may feel uncomfortable and reluctant to share in the classroom setting. In addition, journal assignment encourages the students to look for connections between their personal experience and the theoretical and historical concerns addressed in the readings and in class. We have found that the journal assignment better prepares the students for class discussions. It forces students to interact with class material on a regular basis and helps them to clarify...
difficult concepts. Overall, we have found that this nontraditional form of assessment adds a new dimension to the course.

An additional course requirement for the Psychology of Women class involves a group project. The class is divided into several groups ranging in size from 3-5 students. A topic related to the Psychology of Women is selected by the class (i.e., abortion). Each group is then responsible for researching the selected topic from a different perspective (i.e., biological, psychological, sociological, legal, feminist, etc.). Dividing up the class in this manner allows for each group to compete an exhaustive review of their portion of the topic. At the conclusion of the research, each group must prepare a 20 minute oral presentation, with each student in the group participating. In addition to the presentation, a 5-7 page group paper on their topic is required. The group papers are combined to provide the students with a comprehensive review of the research and literature on the topic. The final paper is copied and distributed to all students. The content of the paper also forms the basis for test material for the final exam.

In order to avoid the problem of having some students do more of the work than others, the instructor should have the students develop and design
a group contract. The contract specifies the responsibilities of each group member. The contracts are signed twice; once when they are written and then again when they are finished with the project. The students sign the second time to insure that each member of the group fulfilled their responsibilities. The group gets one grade for the paper. Each member of the group also gets two grades for the presentation; a group grade and an individual grade.

One of the main objectives of the project is to expose students to an interdisciplinary approach to a topic. In addition, it requires the students to participate in cooperative problem-solving and to develop teamwork skills. The exercise also helps to further develop library research skills.

These alternative methods are best considered as complementing rather than replacing more traditional test and assessment formats. Teachers can foster better learning in their students, not by simply replacing their classroom tests with exercises such as the alternatives discussed above, but rather by integrating the two. By doing so, teachers are availing themselves of the improvements in assessment technology that have occurred over the last decade without surrendering traditional classroom assessments that clearly still have their place in the classroom for measuring certain types of learning.
References


Wellman, P. J. (1986). Laboratory Exercises in Physiological Psychology. Allyn and Bacon, Inc.