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# Testing: Alternative to Grading

ARTHUR ADKINS\*

**I**T IS NEITHER new nor original to say that evaluation is a part of teaching and learning, not apart from them (or it!). I mention this here only to point out that it is the premise of this article, as it was of an ASCD publication several years ago.<sup>1</sup> And testing is part of evaluation.

I realize that the word "testing" is currently almost as unpopular as "grading," but perhaps we can reduce the odium attached to it by what follows, both for teachers and for students. In the minds of many, testing and grades are inseparable, but they need not be. We are always testing ourselves, and each other, even as children. How fast can I run? Can I run faster than my friend can? If let alone, children often set their own goals, they challenge each other, and they challenge themselves.

Back to that later. "Grades" are supposed to offer feedback, to tell a student how well he or she is doing—in a teacher's judgment, at least. Tests can do that, and do it better—at least, more systematically. "Grades" are supposed to "motivate," and perhaps they do (though the evidence is not conclusive on this). Maybe if students are tested—by the teacher, by themselves, by

each other—they can be motivated, too, if they need to be.

Tests are ordinarily made by teachers (I am not speaking of standardized tests, at the moment). What if students made them? Mine do. They write test items, both essay and multiple-choice. We do not waste our time on other types of "objective" items; multiple-choice items offer the best opportunity to get at comprehension or understanding or something above the level of recall. My students write these items on assigned areas of the course they are taking, but on facts or concepts within that area which they consider important. They do this because I think that formulating a test question on an important fact or idea is a learning experience. They also do it because, frankly, I believe that a teacher should do nothing which he or she can get students to do, whether it is to ask a question or to answer it.

Materials and methods are available to help in this.<sup>2</sup> These materials are adequate for college students preparing to be teachers

<sup>1</sup> Fred T. Wilhelms, editor. *Evaluation as Feedback and Guide*. Washington, D.C.: Association for Supervision and Curriculum Development, 1967. 283 pp.

<sup>2</sup> T & M Kit. Princeton, New Jersey: Educational Testing Service. \$1.00 per kit. See especially the booklet "Multiple Choice Questions."

\* Arthur Adkins, Associate Professor of Secondary Education, University of Maryland, College Park

(except that there does not seem to be anything brief available on writing essay questions), but when asking high school students to develop test questions, I have had to supply them with models. It helps if they work in groups of three or four, so they can mutually decide on item content, check out one another's phrasing of a question, and criticize and revise one another's items. With both high school and college students, some of the most thoughtful, provocative sessions occurred when they were wrestling with selecting and phrasing a test item, one which would be important, clear, and neither too easy nor too difficult.

The mechanics of writing multiple-choice items are comparatively easy, though students will find it hard, as teachers do, to think of plausible alternative responses. Perhaps, though, students may know better what distractors would attract those who may not know the correct or best response.

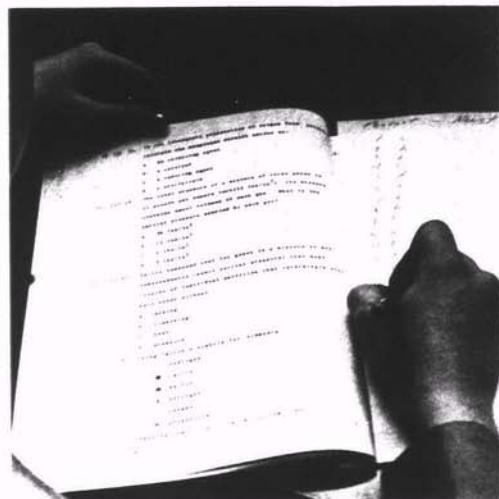
### Making a Scoring Guide

Writing good essay items is in some ways harder, but still a valuable learning experience. Selecting important content and phrasing a clear question or task is difficult enough. Constructing a scoring guide, so that their fellow-students' responses may be evaluated with some degree of objectivity, is in some ways even harder. But even before administering an essay test, the attempt to formulate a scoring guide for one item can help reveal its weaknesses. If a teacher or student cannot write a scoring guide for an item, which includes the essential parts of an answer and the points to be given to each component, maybe his students (or fellow-students) cannot either. Often what seems like a good question for an essay exam turns out to be unanswerable, or unscorable in any reasonably objective manner; maybe it would better serve for discussion, or study.

To show what I mean by a "scoring guide," consider the following as an example of an essay question and a possible guide for scoring it (pretend you are teaching a course in testing, which in a way you are if you adopt this procedure):

*Item:* List four essential parts of a scoring guide to use in evaluating answers to an essay question. (Each part listed correctly counts one point.)

*Scoring Guide:* (Any four of these will do; the order does not matter.)



1. A list of the parts or components of an acceptable answer.
2. The number of points for each component.
3. Directions for scoring.
4. Acceptable alternative wording for the components, if appropriate.
5. Point(s) for correct spelling, punctuation, organization, handwriting, etc., if desired.
6. Point(s) for additional components or ideas not included in the scoring guide, if desired or appropriate.

Again, you will find it interesting to observe your students wrestling with this job: writing an item, constructing a scoring guide, revising or discarding the item. You will be available to help individuals or groups, but resist the temptation to do it for them. How will they know if their items work? That is the next step.

Assemble your students' items into a test, duplicate it, and administer it in the

usual way. During the test, students must be prepared to clarify their items if necessary, just as a teacher would. They will need to decide how much additional information or explanation to give, without giving away the answers. I guess there is no need to expound on the obvious, on the educational value of this kind of exercise, whether it is part of a formal test or not.

Has it occurred to you that the procedures for preparing and scoring responses to an essay item are analogous to those used in judging nonverbal performance: a dive, a round of boxing, a figure in skating? Given a set of criteria (a scoring guide, if you will) students can learn to do these in the same way.

## Testing: A Learning Experience

It is a truism that just taking a test can be a learning experience. If that is so, making a test should be even more so. And scoring it, more so still. Scoring a multiple-choice test is easy—even a machine can do it. There are ways of making this educative too. Scoring it in class, talking it over, requiring students to justify their item and their answers, can be as valuable to them as it has always been for teachers. A premium is added if you utilize some variant of the "punchboard" technique used in programmed instruction.<sup>3</sup> These are self-scoring and provide reinforcement through immediate knowledge of results, while taking the test. Your students will not even have to wait until the test is over, to learn the right answers.

Scoring essay exams, however, is not so easy. It is more "subjective," of course, though we must keep reminding ourselves that there is nothing objective about "objective" exams but their method of scoring. If you group your students for scoring the essay test as you did for writing the items and the scoring guides, you will observe one of the

<sup>3</sup> For example, the "Trainer-Tester" device marketed by Van Valkenburgh, Nooger, and Neville, Inc., 15 Maiden Lane, New York, NY 10038; or the "Action/Mark" Paper Response System marketed by 3M Company, Paper Products Division, 3M Center, Building 220-11W, St. Paul, MN 55101.

most earnest, thoughtful sessions in your experience, while they attempt to apply their scoring guides in evaluating their classmates' papers. (Try taking this a step further; ask them to score responses using someone else's guide!)

Analyzing and evaluating the test ought to be worthwhile also. Why should item analysis be an exercise reserved for teachers or computers or experts in measurement? It is a chore, but it is the one best way to improve tests and test items. It can be done in class, it can be done by students, it can even be fun. When I write a test item, I am always anxious to see how it comes out, and often students are too. Do as Dietrich advises, in "Short-cut Statistics for Teacher-Made Tests."<sup>4</sup> Have your students help you, and let them discover thereby whether their own items discriminate or not, whether they function well as test items. Then they will know whether the items they wrote really work in a test.

I do not know about you, but I found out only a few years ago that one could do item analyses of essay tests also. You might try this too, with your students. Let them find out if their items function.

With either type, I usually add to each student's score the discrimination value of the item he or she (or group members) wrote. That serves as an inducement to students to write good items, and to keep them to themselves.

That last point may be unfair, since we are talking about "alternatives to grading." I still submit grades, perforce, but I do ask the class to decide how much weight a test should carry in determining the grade, when constructed and scored in this way. I suspect that even if we did not give grades the test situation would still generate competition.

If tests have their uses, aside from grading—and I think they do—then asking students to help select material for them, prepare them, score them, and analyze them should be a valuable learning experience at any level. □

<sup>4</sup> T & M Kit. Princeton, New Jersey: Educational Testing Service.

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