school to put the work on a higher plane. Both should see that a large social relationship exists in their work and feel that the school is making a contribution to social progress. Democracy implies interdependence of the individual and the group. Just as the life of no individual teacher is complete without associated living with her group of co-workers, so the life of the school group is not complete without the associated living with the larger community group.

EMILY GOODLETT

OBJECTIVE CLASSROOM TESTS

IT IS now quite generally recognized that teacher's marks based on the traditional essay type of examination are inaccurate and unreliable. Investigations as to the sources of error in written examinations conducted by Starch, Kelly, Dearborn, Johnson, and others brought into relief many inherent defects. It was disclosed that some teachers gave very high marks and others very low marks; that the same teacher assigned different marks to the same paper when it was disguised; that good teachers differed widely as to the marks they gave the same paper. This evidence of great unreliability soon created a widespread doubt and dissatisfaction concerning traditional methods of testing.

The first attempt to meet the problem and to correct the situation was the development of standard tests. This scientific attempt to correct the measuring situation in education brought into the field an army of experts too numerous to mention. A large number of standard tests have been devised for practically all of the common school subjects. As a consequence testing is being elevated to a scientific basis and teaching is becoming more effective. The standardizing movement insists on uniformity in the giving, taking, and scoring of the test; a definite time limit is assigned, a norm established, subjectivity in grading is eliminated, and writing is reduced to a minimum.

Teacher's objective classroom tests were a natural outgrowth of the standard tests. These tests have been given many names in modern educational literature. Sometimes they are spoken of as Nonstandard Tests, again as the New-Type Tests, and, as I prefer to call them, Objective Classroom Tests.

Now the objective classroom tests have, I believe, many points of advantage over the two previously mentioned types of tests, namely, the traditional written examination and the standard tests. But they are, I would insist, at their best when used to supplement and not to replace the other types. As regards the written essay type of examination, the objective tests are (1) more interesting and challenging to both teacher and pupil; (2) they are more economical in time and energy; (3) they are superior in their objectivity; (4) they are easier to score because the responses are definite and either right or wrong; and (5) as a rule a definite time limit is imposed.

There are several advantages which objective classroom tests possess over the standard tests: (1) they are inexpensive; (2) they can be directly adapted to subject matter which has been locally taught; (3) they are more potent in teacher improvement since they are teacher-made; and (4) they do not overemphasize standardization as many feel has been done by the standard movement. Everything considered, I believe that the objective type of classroom test more nearly fulfills the requirements of a good test than any of the other types, although each type has its merits and a definite place in educational testing.

In the construction of objective tests it is important to keep clearly in mind certain definite requirements. I shall note some of the major ones.

1. Make the Tests Objective

Objectivity is one of the prime requirements of the new-type tests. By objectivity
we mean the degree to which the personal element or judgment of the teacher is eliminated in the scoring of the responses. Subjectivity in scoring is one of the major defects of the written examination and one of the things that has made it untrustworthy. Every teacher has his own standards of value; human judgment is fallible even under favorable conditions. So, in the construction of tests one should try to avoid questions the answer to which would be largely a matter of personal opinion. You will find that this rule will improve the teaching condition in your classroom. Arrange your questions so that the answers are either correct or wrong; do not leave any room for doubt.

2. Cover Only Important Points of Subject

In the construction of good objective tests only the fundamentals of the subject are included. For a test to be valid and a score or mark worth giving only important content may be included. You say. But how do you know that the question is important or unimportant? There are several ways by which you may determine the essentials of your subject: (1) analyze several textbooks on the subject; (2) try to secure the judgment of competent persons; (3) try to determine whether or not the point under consideration is called for in courses of study and curricula; and (4) consult standard tests and try to find whether it is included or not. It is far more important to test for fundamentals of subject matter and principles than it is to test for mere incidentals or unrelated facts. Is it not the purpose of a test to determine whether or not the pupils have mastered the fundamentals of the subject?

3. Reduce Writing to a Minimum

It is the purpose of the movement in objective tests to reduce writing to the minimum. It is entirely correct to call for a large amount of writing if you are testing for English composition, but wrong if you are testing, say, for geography. In subjects other than composition, knowledge of fundamental facts and ability to reason on the basis of those facts is greatly impeded by the necessity of too much written expression. Since students differ so widely in ability to express themselves in written composition, certainly this factor alone would introduce a source of variability in the examination. Then, too, subjectivity in scoring is introduced and encouraged.

There are about ten varieties of the new-type tests. Of these I shall choose three and point out something of the nature of each and give a few samples.

1. Multiple-Choice Type

The multiple-choice type test involves a question with several suggested answers, of which the student is to indicate the correct one. The multiple-choice test is one of the most commonly used types and is adaptable to almost every school subject.

Directions—Draw a line under the word which makes the sentence sensible and right.

(1) The Red Cross was founded by Jenny Lind
Clara Barton Carnegie.
(2) "A man's a man for a' that" was written by
Lamb Burns Scott Keats.
(3) Lee surrendered to Sherman Grant Jackson
Sheridan Washington.
(4) Independence means virtue blame freedom
hospitality.

The multiple-answer test leaves no room for doubt or debate as to the correct answer. The common method of scoring the multiple-choice test is to allow one point for each correct response. There are several varieties of the multiple-answer type of test, but the single-answer type illustrated above is probably most commonly used in the grades, and certainly is the easiest for a beginner to attempt.

2. True-False Type

The true-false type of objective tests consists of a number of statements, some of which are true and some false. The questions are arranged in chance order; the pupils are to indicate which are true and which are false. There are a number of ways by which pupils may indicate which
"t" and "f" may be used, or the words "true" and "false" may be written at the left, or right, of the statement. Some teachers have their pupils designate the re- are true and which are false. The letters sponse by signs, letting the + indicate true and the — false. Again some write or print both words and have the pupil to under- score the proper one. The following are samples of the true-false type of test:

Directions—If the statement is true underline the word "true," if "false" underline the word "false."
(1) A dime is less than a nickel. true false
(2) Horses eat grass. true false
(3) We need exercise to keep us strong. true false
(4) A barge is a kind of animal. true false

The true-false type of test is like all other tests; it has its good points and its weak points. One of the common objections and one of the strongest is that it is bad psychology to present false statements to pupils. But a little observation discloses that life itself presents much the same situation as the true-false type of test. In everyday life we often hear the true put as false and the false as true. Life, like the true-false test, calls for discrimination. A discriminating, a critical attitude of mind, is one of the finest fruits of education, and the true-false type of test is a way by which this may be developed.

3. Completion Type

The completion type of objective test consists of statements with one or more crucial words or phrases left out; the omitted words are to be supplied by the pupils. The statements may be sentences, paragraphs, or longer passages. An example follows:

Directions—Fill in the missing words so the following sentences sound sensible and right:
(1) The largest state in the Union is ..............
(2) The ................... was written by Thomas Jefferson and formally adopted on ..............
(3) "The curfew tolls the .............. of parting day."
(4) Louisiana was purchased by ..............

In scoring the completion test, count the responses either right or wrong and give one point for each word correctly placed. Further objectivity may be added to the test by providing a list of possible answers, but I think this is bad practice as it tends to kill initiative in pupils.

BIBLIOGRAPHY

Russell was one of the first to present a discussion of the construction and use of the objective type of test. A good sketch is given of each type of test with a consideration of the merits and demerits of each type.

This book deals with the major types of the newer examinations, their construction, validity, reliability, and use.

This book is very suggestive as to how to make and use new-type tests. It shows how objective tests can be locally adapted to subject-matter and presents a plan for the local construction and use of tests. It is a practical, up-to-date, and clear presentation of the subject.

This is a good discussion of the merits and demerits of the essay-type of examination and the new-type tests of the problems of marking and scoring, and of the construction of the different types of objective tests. It contains many good illustrations taken from specimen tests, and its bibliography is one of the best in print on objective tests.

W. B. VARNER

WITH THE HORIZON LINE

Tenderfoot: "Why do they have knots on the ocean instead of miles?"
First Class Scout: "Well, you see, they couldn't have the ocean tide if there were no knots."

LAW ENFORCEMENT AGAIN

The teacher was giving the class a lecture on "gravity."
"Now, children," she said, "it is the law of gravity that keeps us on this earth."
"But, please, teacher," inquired one small child, "how did we stick on before the law was passed?"—Commerce and Finance.