

# ID Training Modules

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While the method described in this *ID Training Module* may not be the only way of making essay tests more precise and objective, it is a systematic approach that has proven successful and is worth considering.—S.G.S.

## An Objective Approach to Scoring Essays

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### Introduction

Do you like essay questions? When I was a student, I always hated them. I preferred true-false questions. I even liked matching questions with 10 items in Column A and 12 items in Column B more than I liked essay questions.

Now I am an instructional designer. Now I design tests instead of taking them. And now I like essay questions.

The reason my attitude toward essay questions has changed has nothing to do with my change in roles. During the first few years that I designed instruction, I still hated essay questions. My change in attitude has come about because I have persuaded some instructors to adopt a different method for scoring essays. This ID training module is designed to enable you to employ that scoring method.

After completing this module, you should be able to:

1. Design a checklist that can be used to score objectively a set of answers to a given essay question.
2. Identify a sequence in which essays can be read so as to increase the likelihood that the essays will be scored objectively.
3. Identify problems that may arise when an objective method for scoring essays is employed.

Several practice exercises are included in this module to help you acquire these skills.

### An Analytical Approach

Many instructors employ a method for scoring essays that is known as the *global approach*. This approach entails reading an answer to an essay question, forming a general opinion about it, and scoring it based on that general opinion. There are no explicit criteria for judging the worth of the answer.

The problem with the global approach is that it is highly subjective. Instructors using the global approach must rely primarily on their subjective judgment to determine the quality of a student's work.

Whereas the global approach involves much subjectivity, another approach, called the *analytical approach*, is fairly objective. The analytical approach has been used by many instructors and is discussed in many measurement textbooks. There are a number of variations to the approach, but it consists basically of the following four steps:

- Specify the features the answer to the essay question should contain.
- Specify criteria for judging the adequacy of each feature.
- Assign point values to each of the criteria.
- Read each student's answer, using the criteria to help determine the student's score.

### Using the Analytical Approach to Grade an Essay

Let's examine the steps in this approach, using the following essay question taken from a social studies unit on the government of the United States:

Describe how the checks-and-balances system operates. Also indicate whether you think the checks-and-balances system was effective in 1979, describing how two major events during 1979 support your point of view.

Here is how the analytical approach might be used to score students' answers to this essay question:

**STEP 1: Specify the features the answer to the essay question should contain.**

Features:

1. Description of how the checks-and-balances system operates.
2. Statement indicating whether the student thinks the checks-and-balances system was effective in 1979.
3. Description of two major 1979 events that support the student's point of view.

**STEP 2: Specify criteria for judging the adequacy of each feature.**

Feature: Description of how the checks-and-balances system operates.

Criteria: Was the description accurate?  
Was the description well stated?

Feature: Statement indicating whether the student thinks the checks-and-balances system was effective in 1979.

Criteria: Was the statement clear?

Feature: Description of two major 1979 events that support the student's point of view.

Criteria: Are two events cited?  
For each event cited:  
Is the event described accurately?  
Is the event described clearly?  
Does the student clearly indicate how the event supports his or her point of view?

**STEP 3: Assign point values to each of the criteria.**

To assign point values to each of the criteria, the instructor should consider the relative importance of the various criteria. For example, the instructor might decide that a student's ability to describe accurately how the checks-and-balances system operates is more important than the student's ability to indicate how a particular event supports his or her point of view about the system. Thus, the instructor would assign a greater number of points to the criterion that assesses a student's ability to describe the system.

Table 1 contains a checklist indicating the number of points that might be assigned to each of the criteria identified during step 2. The point values appear in parentheses following each of the criteria. A checklist of this type can be used to score a student's answer to an essay question.

When assigning point values for an essay question, the instructor should consider the total number of points that can be earned on the question in relation to the points that can be earned on other questions on the same test. The total points that can be earned on a particular question should reflect the relative importance of that question. If it is decided to revise the total number of points a student can earn on an essay question, the point values for each of the criteria should be adjusted, keeping the relative importance of each of the criteria in mind.

Before going on to the fourth step in the analytical approach, see if you can correctly apply the first three steps by responding to practice exercise 1.

**TABLE 1. Essay scoring checklist**

<b>Feature: Description of how the checks-and-balances system operates.</b>	
Was the description accurate?	(4) _____
Was the description well-stated?	(2) _____
<b>Feature: Statement indicating whether the checks-and-balances system was effective in 1979.</b>	
Was the statement clear?	(1) _____
<b>Feature: Description of two 1979 events.</b>	
Are two events cited?	(2) _____
Is the first event described accurately?	(1) _____
Is the first event described clearly?	(1) _____
Is there a clear indication of how the first event supports the stated viewpoint?	(2) _____
Is the second event described accurately?	(1) _____
Is the second event described clearly?	(1) _____
Is there a clear indication of how the second event supports the stated viewpoint?	(2) _____
<b>Total Points</b>	<b>(17) _____</b>

### PRACTICE EXERCISE 1

Assume you are teaching a course in a graduate program in instructional development and you have recently developed a test that includes the following essay question:

**Describe three frequently stated arguments against the use of behavioral objectives and, in each case, provide an appropriate counter-argument.**

You have decided already that another question on this test is worth 20 points and you consider this question to be of approximately equal importance. Employ the first three steps in the analytical approach in order to design a checklist that can be used to objectively score student answers to this essay question. (After you finish, compare your response with the answer at the end of the module.)

### Applying the Checklist

**STEP 4: Read each student's answer, using the criteria to help determine each student's score.**

As a student's answer is being read, the instructor should determine how well the answer meets each of the specified criteria. If the instructor determines that the answer fully meets a particular criterion, the student should be awarded

the entire number of points assigned to the criterion. If the answer fails to meet the criterion, the student should not be awarded any points.

In some cases, a student's answer will partially meet a criterion. For example, the instructor might decide that a student's description of the checks-and-balances system was not entirely well stated, or that a student failed to describe one of the components within the checks-and-balances system. In cases such as these, the student should receive a portion of the points assigned to a particular criterion.

As the previous paragraph implies, the analytical approach to scoring essays does not eliminate value judgments. However, unlike the global approach, the analytical approach requires that judgments be made with regard to specified criteria. Thus, when used properly, the analytical approach is more objective than the global approach.

Whichever approach instructors use to score essays, there are several general principles that should be applied to make the scoring more objective. One principle is to score each essay before identifying who wrote it. Thus, any opinion an instructor may have about a particular student will not affect the way the instructor scores the student's answer.

An additional principle applies when there is more than one essay question. In such cases, the instructor should score each student's answer to one question before scoring any student's answer to the next question. Thus, a student's performance on one question will be less likely to have an effect on the instructor's scoring of the student's answer to another question.

Furthermore, instructors should be sure to change the order in which they read students' answers as they move from one essay question to the next. Thus, if an instructor has a tendency to become more lenient or more strict in the process of reading through the answers to an essay question, no student will receive an unfair advantage by having each of his or her answers read at a particular point in the sequence.

Now that you have read about some of the principles that should be applied to score essays more objectively, try to respond correctly to practice exercise 2.

### PRACTICE EXERCISE 2

Assume you recently have given your class a test consisting of two essay questions and you are now ready to score your students' essays. You have in front of you three test booklets (A, B, and C), one for each student in your class (you have a very small class). Each booklet contains two essays (essay 1 and essay 2). According to the principles described in this article, which of the following lists the most appropriate sequence in which you should read the essays—X, Y, or Z?

___ X	___ Y	___ Z
essay 1, booklet A	essay 1, booklet A	essay 1, booklet A
essay 1, booklet B	essay 2, booklet A	essay 1, booklet B
essay 1, booklet C	essay 1, booklet B	essay 1, booklet C
essay 2, booklet A	essay 2, booklet B	essay 2, booklet B
essay 2, booklet B	essay 1, booklet C	essay 2, booklet C
essay 2, booklet C	essay 2, booklet C	essay 2, booklet A

After you have made your decision, check your response with the answer at the end of the module.

### Several Cautions

If an instructor decides to use the analytical approach to scoring essays, the instructor should be aware of two problems often associated with it. First, it is often difficult to specify the basis upon which an essay should be judged. Trivial criteria might be focused upon because they are often easiest to specify. After criteria are specified, they should be reviewed carefully to ensure that this problem has been avoided.

A second problem associated with the analytical approach is that an instructor, in looking for specific features in an essay, may fail to examine the ways in which those features are related. To overcome this problem, the instructor may wish to include a criterion item such as "Are the ideas in the essay clearly related?" (See practice exercise 3.)

### PRACTICE EXERCISE 3

Examine the criteria listed in the answer to practice exercise 1, and answer the following questions:

1. Do you consider any of the criteria to be trivial? If so, which?

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2. Do you think it is necessary to add another criterion item that focuses attention on the way in which ideas in the essay are related?

\_\_\_ Yes  
\_\_\_ No

Compare your responses with the answers at the end of the module.

### Summary

The analytical approach for scoring essays allows an instructor to be fairly objective. It consists of four steps: (a) specifying the features the answer must contain; (b) specifying the criteria for judging the adequacy of each feature; (c) assigning point values to each of the criteria; and (d) reading each student's answer using the criteria to help determine the student's score.

In spite of several problems the analytical approach may present, I prefer it because it is more objective and thus enables instructors to score essays more accurately. I feel good about this, and so do the instructors I work with. Maybe you should try to convince the instructors you work with to use the analytical approach. It could have a salutary effect on the instructors, on their students, and on you.

## Additional Readings

- Bloom, B.S., Hastings, J.T., & Madaus, G.F. *Handbook on formative and summative evaluation of student learning*. New York: McGraw-Hill, 1971.
- "Essay tests—General considerations (Testing Bulletin No. 1)" and "The writing of essay tests (Testing Bulletin No. 2)." East Lansing: Michigan State University, Learning and Evaluation Service, 1971.
- McKeachie, W.J. *Teaching tips: A guidebook for the beginning college teacher*. Lexington, Mass.: D.C. Heath, 1978.
- Miller, W.R., & Rose, H.C. *Instructors and their jobs*. Chicago: American Technical Society, 1975.
- Thorndike, R.L. (Ed.) *Educational measurement*. Washington: American Council on Education, 1971.
- Thorndike, R.L. "Writing assessment: An issue for the 1980's." *Clearinghouse for Applied Performance Testing Newsletter*, Northwest Regional Education Laboratory, Vol. 5, No. 3, January 1980.
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## ANSWERS TO PRACTICE EXERCISES

### Exercise 1

Listed here is one example of how you might have performed the first three steps in the analytical approach in order to develop your checklist.

#### STEP 1: Specify the features the answer to the essay question should contain.

**Features:** 1) Description of three frequently stated arguments against the use of behavioral objectives. 2) Description of three appropriate counter-arguments.

#### STEP 2: Specify criteria for judging the adequacy of each feature.

**Feature:** Description of three frequently stated arguments against the use of behavioral objectives.

**Criteria:** Is each argument one that is frequently used? Is each argument clearly described?

**Feature:** Description of three appropriate counter-arguments.

**Criteria:** Is each counter-argument an appropriate response to the argument it is used against? Is each counter-argument clearly described?

#### STEP 3: Assign point values to each of the criteria.

In performing this step, you should have decided upon the relative importance of each of the criteria, noted the approximate number of points you wanted to assign to the essay question, and then divided the points among the criteria, using your decision regarding the relative importance of the criteria as a guide. In following this strategy, I decided that describing arguments against the use of behavioral objectives was not as important as

describing appropriate counter-arguments, therefore I decided to assign more points to the criteria related to the counter-arguments. Because each criterion pertained to three arguments (or counter-arguments), I also decided that the point value assigned to each criterion would be a multiple of three. Taking into account these decisions, and the fact that I wanted to assign approximately 20 points to the essay question, I was able to determine the number of points to assign to each criterion. These point values are indicated on this checklist.

**Feature: Description of three frequently stated arguments against the use of behavioral objectives.**

Is each argument one that is frequently used? (3) \_\_\_\_\_

Is each argument clearly described? (3) \_\_\_\_\_

**Feature: Description of three appropriate counter-arguments.**

Is each counter-argument an appropriate response to the argument it is used against? (6) \_\_\_\_\_

Is each counter-argument clearly described? (6) \_\_\_\_\_

**Total Points** (18) \_\_\_\_\_

### Exercise 2

The correct answer is Z. The sequence listed under Z incorporates two of the principles described in this training module: a) score each student's answer to one question before scoring any student's answer to the next question, and b) change the order in which you read students' answers as you move from one essay question to the next. Choice X violates principle (b) and choice Y violates principle (a).

### Exercise 3

Because both of the questions listed ask for an opinion, there are no wrong answers to either question. Nonetheless, in order to provide you with some feedback, I asked three instructional designers to read this module and respond to both questions. A summary of their responses to the two questions is: 1) All three designers indicated that the criteria listed in Practice Exercise 1 are not trivial. 2) One designer felt it would be desirable to include a criterion item that focused attention on the way in which ideas were related. The other two designers, however, felt that an additional criterion item was not necessary.

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## WRITE A TRAINING MODULE

JID is interested in publishing short self-instructional materials as ID Training Modules. Each module should teach or improve the readers' skills in ID and be written in an instructional format. Authors may address the skill needs of beginning or advanced instructional developers, but must limit the length of each module to fit within 8 pages when published.

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