

## EVALUATING STUDENT PROGRESS

### I. INTRODUCTION

#### A. THREE QUESTIONS IN EDUCATION

1. What is worth learning?
2. How is it to be taught?
3. How well has it been taught?

#### B. EVALUATION

1. Curriculum
2. Methods
3. Instructor
4. Learner

#### C. EVALUATION OF THE LEARNER

1. Mental Ability
2. Personality and Interests
3. Achievement - What the learner has gained or acquired (since a point in past)

#### D. EVALUATION OF THE LEARNER'S ACHIEVEMENT

1. Standardized Evaluation/Testing
2. Teacher Evaluation/Testing

#### E. TEACHER EVALUATION METHODS

1. Assignments
2. Quizzes
3. Tests

### II. TESTING

#### A. PLANNING THE TEST

1. Relate it to the objectives
  - a. cells
  - b. items per cell
  - c. Bloom's taxonomy

2. Begin it early
  - a. write questions daily
  - b. 3 x 5 card system
  - c. produce more questions than you think you will need
3. Have a variety of test items
4. Vary the difficulty of the items
5. Increase the number of items to improve the test's reliability
6. Decide on speed or power test
  - a. Speed - a test that has a definite time limit.
  - b. Power - a test in which the items are arranged according to difficulty.
7. Plan each school quarter so that time will permit three or four tests

## B. PREPARING THE TEST

1. Subjective Items (Essay Questions) - A subjective item is one in which the personal opinions of the grader are allowed to affect the score assigned.
  - a. Advantages
    1. easy to prepare
    2. assist in developing pressure writing skills
    3. generally test high mental processes - Bloom's taxonomy
  - b. Disadvantages
    1. limited sample
    2. ambiguity in question
    3. grading
      - a. research shows that 40% of the grade depends on who graded it; 10% depends on when it was graded
      - b. grades tend to let up towards the end of a stack of essays
      - c. scores reflect the preceding paper's results
      - d. scores reflect a teacher's preconceived notion of how a student is going to do
      - e. essays are hard to score fairly because grammar, writing ability, penmanship, etc. sometimes un-

c. Ways to improve essay questions

1. increase the number of questions
2. reduce the weight per questions
3. be specific in asking the question
4. prepare the student
  - a. write legibly
  - b. plan time per question
  - c. organize thoughts
  - d. practice sample questions prior to test
  - e. teach the student to reread and underline important points
  - f. teach the student to use course vocabulary
  - g. develop a system to withhold author identity while grading.

5. Grade by a research-tested method

a. Cochran and Wiedaman

- i. write an answer yourself in advance that includes all the information you expect or would accept.
- ii. check the student's paper against your expected answer
- iii. decide grade based on previously assigned values for each piece of information which is included in their answer

b. Sims

- i. read essays and sort into 3-5 groups based on closeness to expectations
- ii. reread each group and assign grade on relative position within group

c. Basic principle for grading essays - Only those factors should be taken into account which show evidence of the degree to which the learner has attained the objectives for the course

2. Objective Items - An objective item is one in which the response of the learner is scored or summarized in such a way that all judges would agree to the score assigned or the analysis given.

a. Advantages

1. easy to grade
2. many items can be handled in a short time - increases reliability

3. they can be graded by someone other than the examiner
4. one student's answers do not influence another student's answers

b. Disadvantages

1. harder to construct
2. tend not to be used for testing higher mental processes

c. Types

1. True-False (yes-no, right-wrong, + - --)

a. Weaknesses

- i. greatest chance for guessing correctly
- ii. misused most often by those who think they are easy to develop

b. Suggestions for using

- i. use an approximately equal number of both true and false
- ii. use only one idea per item - don't double barrel
- iii. avoid negative statements
- iv. don't make items unusually long or involved
- v. use only with statements that are unquestionably true or false
- vi. don't let a minute detail make a true question false
- vii. be careful with specific determiners
- viii. don't lift sentences verbatim from a text
- ix. avoid ambiguity
- x. use modified true-false for better results

2. Matching (Classification)

a. Disadvantage - some subject matter is unsuitable for matching; some relationship needs to exist for effective matching

b. Suggestions for using

- i. keep both columns on the same page
- ii. use 8-12 items per set
- iii. have more items in the response column than in the primary column or make it possible to use one answer more than once
- iv. arrange both columns in a logical order (alphabetical, numerical, chronological, etc.)
- v. keep uniformity in both sets
- vi. be specific about the relationship you desire to be matched
- vii. design questions so that a response can be used more than once but an item can only have one correct choice

### 3. Multiple Choice

#### a. Advantages

- i. versatility
- ii. reduces successful guessing greatly
- iii. student familiarity
- iv. more readily usable to test higher levels of learning

#### b. Disadvantages

- i. difficult to construct
- ii. take longer to solve

#### c. Suggestions for using

- i. obtain distractors through quizzes by asking supply type questions and saving common or reasonable mistakes
- ii. use at least four and preferably five distractors
- iii. make all distractors plausible
- iv. avoid giving clues in the stems or possible answers
- v. make all distractors grammatically parallel
- vi. list answers separately from the stem
- vii. only allow one answer to be acceptable; it may be a best answer though; all others should have minor faults
- viii. all choices should come at the end of the item
- ix. put as much information in the stem as possible
- x. limit the use of "none of the above"; avoid the use of "all of the above"; creates problems if using best answer

### 4. Supply Type Items (fill in the blank, short answer, completion)

#### a. Advantages

- i. test recall ability
- ii. reduce likelihood of correct guessing
- iii. easy to construct
- iv. allow large sample because of economy of space

#### b. Disadvantages

- i. difficult to score; teacher must usually do scoring
- ii. usually measure low level cognitive thinking
- iii. hard to construct so that one answer is obvious

c. Suggestions for using

- i. omit only significant words - no trivia
- ii. leave enough clues so that it can be answered correctly
- iii. use mainly for factual details (names, dates, etc.)
- iv. put blanks at the end of the statements preferably
- v. specify how the answer is to be expressed
- vi. don't include hints
- vii. design so that it has only one short definite answer
- viii. don't remove verbatim statements from the text

3. General Preparation Tips

2-5

a. Organize the test

- 1. Review items and rewrite poor ones
- 2. Arrange the items
- 3. Position answers so that there is no pattern
- 4. Prepare directions

b. Type the test

- 1. Professional appearance
- 2. Easier for the student to take

c. Develop an answer sheet

- 1. Saves retyping in a year or two
- 2. Saves paper - only rerun the answer sheet
- 3. Makes it easier to correct

d. Take the test yourself

- 1. Gives the teacher an opportunity to locate errors or problems
- 2. Prevents students from wasting time while corrections are explained

e. Prepare a key

f. Strive to make it as reusable as possible

- g. Give tests at appropriate times
  - 1. Avoid Monday and Friday
  - 2. Avoid afternoons
  - 3. Avoid holidays (immediately before or after)
  - 4. Avoid conflict with outside the room disturbances
- h. Motivate the students
  - 1. Positive mental attitude
  - 2. Develop tension relievers
  - 3. Teach and practice good review
  - 4. Teach how to answer questions (cross out obvious distractors or answers finished with)

### C. ADMINISTERING THE TEST

- 1. Prevent cheating
  - a. require cover sheets
  - b. develop "it takes two" philosophy
  - c. arrange the desks so cheating is difficult
- 2. Prepare the students
  - a. several writing instruments
  - b. instructions for when finished
  - c. instructions for how to get questions answered
  - d. instructions on keeping all materials out of sight
  - e. read directions to them orally
  - f. pass out tests individually - count and double check
- 3. Circulate throughout the room
  - a. make sure directions are being followed
  - b. look for cheaters - TEACHER'S RESPONSIBILITY TO CATCH

#### D. GRADING AND RETURNING THE TEST

1. Importance of immediacy
  - a. motivational
  - b. reinforcement
  - c. professional
2. Importance of specificity
  - a. motivational
  - b. reinforcement
  - c. professional
3. Adjusting grades
  - a. consult proper channels
  - b. don't let students know you are doing it
4. Control of test materials
  - a. recount when handed back in
  - b. throw away materials which could become tools for cheating

#### E. EVALUATING THE TEST

1. Three variables in test scores
  - a. Tests - lousy tests  $\neq$  lousy grades
  - b. Teacher - lousy teaching = lousy grades
  - c. Student - lousy preparation = lousy grade
2. Statistical evaluation
  - a. Item analysis

#### F. QUALIFICATIONS OF A GOOD TEST MAKER

1. A desire to make good tests
2. Adequate knowledge of the subject
3. Good writing skills
4. Organizational skills
5. Knowledge of good test construction principles

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