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 question
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 exam.
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

d. 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

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 ≠ 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

This book is an excellent summary of the entire evaluation process in education. It includes much useful information on teacher-test construction as well as material on selection of appropriate standardized measurement instruments.


This educational psychology text has two chapters (eight and nine) which deal with forgetting and extinction and transfer and understanding. It is material all test-constructors should know.


The author has included numerous ideas on evaluation throughout this entire book on effective teaching methods. Chapters 5, 7, 9, 11 all cover important concepts of evaluation.


Although Mager's book deals primarily with writing objectives, all test constructors should realize that good test questions come out of well-thought out objectives. Mager's book is excellent in teaching one how to write good behavioral objectives which will lead to better test construction.


Minium takes testing into a realm beyond the concern of the average teacher. For those professionals who wish to evaluate their tests for purposes of norming, this is an excellent text.


This is an excellent general text in educational measurement. It has information useful to both the person who just wants to construct a good test as well as information for the person who wants to extend his analysis of his test beyond the usual. It also contains good information of standardized testing.

Although generally about curriculum improvement, this text does show the relationship between curriculum and tests. Chapters 7, 9 and 10 contain such information.


For the professional test maker, this book speaks to the difficulties of norming a test for continual use.