Quick Guide to Better Tests

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General suggestions for developing tests

✓ List the important concepts, principles, and skills you want students to master, then write items that measure these.
✓ Don’t try to write an exam in one sitting. One idea: after every class, write two or three items that relate to that class session.
✓ Write items that students can’t answer just by memorizing information; exam questions should measure ability to apply content to new settings, to analyze, evaluate, etc.
✓ Use homework or in-class activities to give students practice at responding to items like those you will use on the exam.
✓ Ask a colleague (or BEST) to review an exam for clarity before you finalize it.
✓ Recognize that essay tests are relatively easy to write, but take a long time to grade. Good multiple-choice tests, on the other hand, can be scored quickly, but take much longer to write.

Multiple choice items

✓ Present items in a new context, rather than using exactly the language from the text or class.
✓ Use item “templates” to help vary the format and cognitive level of items. E.g.,
  - Which of the following is the best definition of concept X?
  - Which of the following is the best label for this description?
  - Which of the following possible examples best exemplifies this concept or principle?
  - Which of the following features best distinguishes this concept from related concepts?
  - Given this scenario, which of the following is the best course of action?
  - Given this scenario, which of the following is the most likely consequence?

Essay items

✓ Avoid using essay items to test for only factual knowledge, since multiple-choice items can do this more reliably and efficiently.
✓ Structure and focus questions clearly, so students know what you expect. Present a specific problem, such as
  - Compare and contrast X and Y in regard to Z
  - Present arguments for or against some issue
  - Describe an application of a rule or principle
  - Evaluate a scenario in light of given criteria
  - Predict an outcome or draw inferences from given data
✓ Several shorter questions are usually better than fewer longer questions.
Multiple choice items (contd.)

- After administering the exam, use BEST’s item analysis program to help identify items that didn’t work as you intended.
- Guidelines for writing good items:
  - The item “stem” (the part that appears before the answer options) should present a problem, should generally contain a verb, and should include any words that would otherwise be repeated in each answer option.
  - Avoid stems that reveal the answer to another item.
  - Avoid negatives (“not”, “never”) in the stem, but if necessary, call attention to them by underlining or bolding.
  - “Distracters” (the incorrect answer options) should be wrong, but plausible.
  - Use common student errors as distracters.
  - Avoid using “all of the above” and “none of the above” as answer options.
  - Make the correct answer option about the same length as the distracters.
  - Avoid unintended verbal clues as to the right answer; e.g., words in the stem repeated in the correct answer, but not in the distracters, or grammatical clues, where only the correct answer makes grammatical sense with the stem.
  - The correct answer option should occur in each “position” (i.e., A, B, C, or D) about the same number of times, but avoid a repeating pattern.

Essay items (contd.)

- Guidelines for grading essays more reliably:
  - Before grading, list the main points you expect a good answer to cover.
  - Decide in advance how you will handle factors such as spelling and grammar, and apply the rules consistently.
  - Before grading, read through a few sample student answers to get a general idea of the quality level.
  - To counteract the “halo” effect, try to grade answers without knowing the student’s identity.
  - Grade one question for all students before going on to the next question.
  - If possible, read each answer twice, shuffling the order the second time through.
  - Reshuffle the papers after completing each item.
  - Sort papers into “high,” “medium,” and “low” stacks before assigning final grades.
  - Write comments so that students understand why answers were good or poor.
  - If multiple graders are used, have a “norming” session.

Sources: