MODULE FOR WRITING TESTS
By Betty Arnett

The students should be informed of the criteria and grading scale for all testing in the course syllabus during orientation.

Tests should reflect the standards of competence that the surgical technology program demands. Tests can provide an evaluation of the competencies, feedback on how much a student understands, as well as providing the basis to justify the student advancement to a higher level. Frequent testing will let you know if a student has mastered a competency. Do not waste student's time with trick questions or exercises that do not pertain to a given course or unit.

Begin by writing course objectives. Tests should match the objectives of the course, however, every objective does not have to be in every test. Determine what you want your students to do. Is it merely to recall facts, apply information learned or utilize their cognitive skills of problem solving and decision making. Writing test questions before you teach a course permits you to analyze the test questions and make necessary revisions.

Before you decide on the number or type of questions, determine the purpose of the test. Also determine the cognitive level or weight for each question. You can decide the weight or importance of a question by how much time was spent on teaching the information and how important the information is to the total content of the test. The total weight of all questions should be equal to the total number of points for the entire test. For example, if the test is equal to 100 points, the total weight of all the questions should also equal 100%.

The basic types of tests are multiple-choice, true and false, matching, completion and essay. The following are tips for writing these types of tests.

Tips for Writing Multiple-Choice Tests

Multiple-choice tests consist of an incomplete statement, followed by possible answers. You may use 3, 4, or 5 distractors with one best answer. The number of questions and the number of distractors should determine the amount of time the students have to take the test. Generally permit 1 to 2 minutes for each MC question. A MC test can be graded quickly and leaves no margin for analysis on the part of the instructor.

- Have a single idea in the question. Focus on a particular item or subject for each question.
- Avoid using negative phrasing, like putting the word "not" at the beginning of a distractor. Focus on the positive, such as "all of the following, except".
- Do not give specific clues to the answer in the question. For example, if you are asking a question about instruments related to a surgical specialty, have all of the distractors be the name of instruments.

- Make the distractors approximately the same length/same number of words. A distractor shorter or longer than the others is a give away that it is the correct answer.
- Avoid words like *all, always, never* or *none*. Distractors with these words are most likely not the answer.
- Arrange the distractors in numerical order or alphabetical order. However, be careful not to get in the habit of making the answer the same choice, such as "c" being consistently the answer.
- Create a bank of MC questions for a particular unit or course and periodically rotate the questions from the bank, instead of making a new test for each new school year. But, remember to up-date the test bank.

Tips for Writing True and False Tests

True and False tests can be a challenge to construct, however, easy to grade. Most students can answer this type of question within 12 – 25 seconds. True and False tests are not a good measurement of why a student selected a specific answer. The student has a 50-50 chance of guessing the answer.

- Avoid tricky questions. Use complete true and false questions in which the question is totally true or false.
- Avoid the use of words such as *all, always, never, none, sometimes* and *usually*. These terms tend to make a student select false as the answer.
- Try to write questions in which an equal number of the answers are true or false.
- Avoid developing a pattern with the answers.

Tips for Writing Matching Tests

Matching tests are a good way to measure the facts a student has learned. However, a matching test does not measure their higher cognitive level of knowledge. Student should be able to match the items within 10 – 15 seconds.

- Provide specific directions as to which column is to be matched with which column and the answer can only be used once.
- Examples of items which can be used on matching tests include organs versus function or structure, terms versus definition, or instruments versus surgical procedures.
- Keep the number of matching type questions to approximately 10 and never more than 15.
- Keep matching and list items within the same category. For example, if using instruments and procedures, do not throw in organs and functions.
- Arrange the column to match in random order and the answers in alphabetical order.
- Uneven answers are usually better than equal. This will keep the student from using the process of elimination rather than knowing the correct answer.

- The questions and answers need to be short and precise. Preferably one or two words.
- In addition to word matching, you can use pictures with numbers to match to a correct answer. Remember to have more possible answers than numbers on the picture.

Tips for Writing Completion Tests

Completion tests are easy to construct and a student should be able to answer a question within 5 – 10 seconds. You can use these as a higher level of cognitive thinking if you present the answer to the question in context of a hypothetical situation and not as mere fact. The questions can consist of a short answer to a question or as an incomplete statement.

- If you place the blank or answer to the question at the end of the statement, instead of in the middle, it will keep a less confident student from reading the question over and over trying to search for clues.
- Be sure to make the answer to the statement as only one correct response. This will avoid any confusion as far as not having to give partial credit for an answer that is not totally wrong.

Tips for Writing Essay Tests

Essay tests are fairly easy to construct and time consuming to grade. Establish criteria on hand written, typed, spelling, grammar usage, number of words or length, etc., and inform the students of the criteria well in advance. The advantage of an essay test is it will give students a chance to practice and improve writing skills.

- Decide if you want the student to give factual knowledge or their interpretation of a subject.
- Be specific in what you want the student to write about in the essay, without limiting them from telling you what they know.
- Decide if you want the essay to reflect the student's knowledge or problem solving skills in the essay.
- Require all student to give you the same information to make the grading fair.
- If you give them an outline or expect a specific response from the student, state what you expect their essay to include.
- Use an essay test score along with other tests to determine a student's final grade to avoid penalizing a student with deficient writing skills.