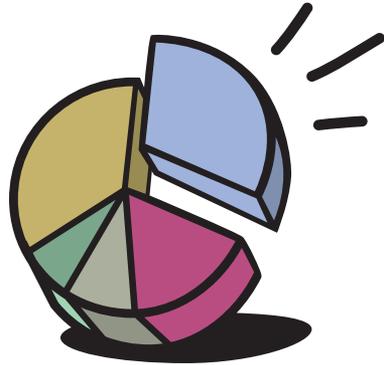




If You Use Multiple-choice Tests, Here's How to Boost Retention

by George Finan, TFS Author

About 80 percent of the evaluation of my government survey course is done through multiple-choice testing. While the test is supposed to contribute to the student's understanding, learned content often goes to memory dump as soon as the test is over. To counter this trend, I created a technique using a mixture of individual and group testing to enhance retention. This idea employs a Scantron to speed scoring, but a paper or LMS-based system could work as well.



Scantron or Other Quick Grading System Required

In order for this approach to work, you need at least a 75-minute period. On a 50-question multiple-choice test, the students have 30-40 minutes to complete the test on individual Scantron forms (optically machine-scored response system).

I collect the individual answer sheets. I then ask students to form groups of four to five, and give them one new Scantron form on which they will put their collective answers. After 20 minutes, I collect the group score sheet, and then take 5 minutes to score them.

I use the last 10-15 minutes to look over their scores and answer any questions that an entire group might have missed (group scores are usually in the 90 to 100 range).

Purpose of Group Test

The group test serves as the review and generates intense discussion. The groups teach each other in a direct way wherein each member justifies his answers or admits he doesn't know. There is the added peer pressure from the group to put in some extra studying before the test. Groups are encouraged to work together, because each student's final score is based on the individual's score plus a percentage of the difference between the individual and group scores. Regardless of the group score, a student cannot score less than his individual score.

How to Calculate an Individual's Score

The formula to compute the student's score is: Final Score = Individual score + (Group score - Individual score) x Fraction (the Fraction is based on the individual scores: 100-90% = 1/2; 89-80% = 1/3; 79-70% = 1/4; <70% = 1/5). For example: If a student scored 80 on an individual test and a 92 on the group test, then the student's score would be $80 + (92-80) \times 1/3 = 80 + 4 = 84$.

Additional Benefits

Students are motivated to get the highest individual scores to take advantage of the higher fraction. The test review becomes an animated series of discussions as each group tries to reach consensus on their group answers. Peer pressure gets some students to study harder before the test, and some groups form study groups to prepare for the test. Teamwork is encouraged, knowledge is reinforced, and everyone realizes some gain from the review process.