POPP Tests: Valuable Instructional Tools

My student population is primarily composed of 18-year-old freshmen. This is their first college experience. I teach Biology for Majors, and Human Anatomy and Physiology, two courses that are filled primarily with students wishing to enter into some health-related profession. For too many of these students, the course is the first science they have had since taking freshman high school biology. To my dismay, but not surprise, most of these students do not know that they have to study to pass, and they really do not know how to study. They must learn that studying is more than just “looking over their notes” five minutes before class time. I am sold on “pop tests” as a means of encouraging students to study regularly.

Most of my pop tests are given at the beginning of the class period, reducing tardiness since pop tests cannot be taken at a later time. Each pop test is usually 10 fill-in-the-blank questions. Occasionally, I may have as many as 20 questions, including matching, true-false, or multiple-choice questions. I average about 10 lecture pop tests per semester, dropping the lowest grade. The other pop tests are averaged together and equal a major test grade when calculating final averages. This information is included in the course syllabus distributed at the beginning of the semester.

I believe students should know how important good study habits are to their success, and sharing what I had learned about the effect of preparing well for pop tests seemed to be important. So I examined student performance over three semesters. One hundred percent of the students who passed the first four pop tests also passed the first major test. Only 6% of the students who failed all four pop tests passed the first major test. Percentages of students passing three of four, two of four, and one of four pop tests were also calculated in reference to the first major test grade. There was a direct correlation at all levels. I correlated students’ letter grades on the major tests to their pop test averages, through the first four pop tests. Again, there was a direct correlation. Students who made an A on the first major test had an 84 pop test average. Students who made an F on their first major test had an average of 3.5. Again, there was a direct correlation between major test grades and B, C, and D grades.

I was curious about attendance and looked at student attendance during the first five weeks, prior to the first major test. Students who received an A on the first test had no recorded absences. Students making an F on the first major test averaged 12 absences. There was a direct correlation between absences and B, C, and D grades.

Immediately following the first major test, I present these data to students. I discuss the importance of regular study and attendance, methods of studying, and strategies that may enhance study—recopying notes, making flash cards, and the like. I divide each class into study groups and discuss the advantages of these groups and how they should function. Groups are organized arbitrarily this day, but students are free to switch groups or to form more natural groups as they see fit. But, it is important to give them a start.

I do not wait until after the first test to counsel students! From the first day of class, I stress attendance and studying regularly. But until the students see their first major test grades, much of what has been said is not taken seriously. Many students still feel that they can make decent grades by cramming before the tests or just reading over their notes a few times. It takes the first major test score to get their attention.

I give ample major tests and pop tests, so a poor grade on the first test does not prevent a student from earning an A or B for the semester. Some students drop out, some maintain good grades throughout, some make no changes in their efforts and continue to do poorly, but many form better study habits and improve their grades.

At the beginning of the semester, many students are concerned that their pop test grades will lower their average for the course. This is especially true in human anatomy and physiology classes, where most students must receive a C or better in order to enroll in the nursing program.

Over the last three semesters, I have asked students to respond to the following questions—prior to the final
exam and anonymously. Some of the questions, with their aggregate responses, follow:

1. Do you think that the pop tests lowered your overall grade?
   Yes=39%   No=61%
2. Do you think that the pop tests raised your overall grade?
   Yes=50%   No=50%
3. Do you think that the pop tests made you study more?
   Yes=100%   No=0%
4. Would you have done as well on major tests if you had not had pop tests?
   Yes=7%     No=93%
5. Would you recommend this course, taught by this instructor, to other students?
   Yes=100%   No=0%

The answers to questions #3 and #4 were especially meaningful. Results indicated that pop tests encourage students to study more frequently and help them achieve higher scores on major tests.

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