## December, 2002 - John E. Hammett, III Mathematics

## The Test Journal

When students earn low grades on tests in my classes, I offer them an opportunity in the form of the following supplemental assignment: they write a test journal about the experience. The focus of this writing exercise, however, is not what you might expect. My students do not merely vent frustration about their poor performance or comment on the test's level of difficulty, as they might in a diary entry. Instead, upon receiving their graded tests back from me, they review them thoroughly, revisiting all questions or problems that they answered either incompletely or incorrectly. As they do so, my students identify in writing why those original responses were wrong; they also revise those responses, making sure they completely and correctly answer each test question that did not earn full credit.

I have used this exercise with my students as they work to correct open-ended problem- solving questions from my math tests that they initially got wrong. However, this test journal assignment can also work in conjunction with virtually any type of test, from short-answer objective to long-form essay.

For instance, consider a testing scenario in one of your courses where your students must answer a question by identifying and explaining four important characteristics of some concept. Chris, a student in your class, responded to this test item in the following fashion: (1) a first point was correctly and completely presented; (2) a second point was correctly but only partially developed; (3) a third point was unrelated to the topic, and (4) a fourth point, though requested, was never mentioned.

Instead of providing an example of a complete and correct answer, perhaps on an answer key you typically distribute to your classes after testing, you could simply note that the response to this question as a whole was unacceptable. Chris then has the responsibility to determine why the original answer was marked wrong. In particular, Chris must decide if the response was either incomplete or incorrect. Chris must, most importantly, construct an answer to the question that is both complete and correct.

Returning to the example, Chris could revise the response to the test item, making sure to answer the question fully and accurately. This edited answer to the test question would comprise the main body of the journal entry. Chris could also address the original mistakes by (I) acknowledging that the first point cited was indeed correct, (2) commenting that the second point cited was partially correct, though incomplete, (3) explaining in detail why the third point cited was wrong, and (4) admitting that an expected fourth point was never included in the original reply. This reflective piece would accompany the completed and corrected answer, and appear in a wide margin adjacent to the corrections.

I establish some level of expectation that these journal entries must be completed and submitted on a regular basis whenever my students perform poorly on tests. As incentive, I permit my students to earn back one-half of the credit lost on each test, subject to a course cap on bonus credit per student. In other words, my students need to produce essentially a perfect test paper and explain all previous errors in order to earn a somewhat improved score.

If you do not entertain extra credit options, you could consider alternative means by which to assure that your students achieve closure on the content being tested, an important by-product of this writing to learn activity. As one option, you could state in your course syllabus that upgrades for any final course grades that are borderline would occur only for students who completed all required test journals.

What if my students admit they still have no clue as to how to answer a particular test question, even after the graded tests have been returned? I tell them to be persistent, and to get help from a classmate or a tutor. The purpose of this writing assignment is for the student to reach closure on the issue by getting the correct answer for the test item, even if help is needed in achieving that goal.

Are students cheating on this post-test assignment by asking classmates to share their correct answers? No, because the journal writers must still compare and contrast these best responses against their original answers. As they document this synthesis in their journal entries, they remain actively and personally engaged in the content and concepts being tested.

For all these reasons, the test journal assignment substantially extends the educational impact of the traditional paper-and-pencil test beyond both the original test date and even beyond the date I return graded exams to my classes. Perhaps most important, my students construct for themselves some degree of success out of their own failures.