Exam Self-Reflection

Objectives

To help students reflect on their exam performance, helping them to improve for the future and learn from their errors.

Background

One of the earliest uses of this strategy was called "Error Analysis". (DuBois & Staley, 1997) A copy of this paper along with a short summary will be uploaded to the google drive folder. There are three components: test-question analysis, information-processing analysis and self-management analysis. Please see summary for more details.

The term "Exam Wrappers" was coined by researchers at Carnegie Mellon led by Marsha Lovett in a book called "Using Reflection and Metacognition to Improve Student Learning Across the Disciplines, Across the Academy" by Naomi Silver, Matthew Kaplan, Danielle LaVaque-Manty, Deborah Meizlish, James Rhem.

In the book, "How Learning Works: 7 Research-Based Principles for Smart Teaching", Susan Ambrose addresses how students generally react to exams. "All too often when students receive back a graded exam, they focus on a single feature – the score they earned. Although this focus on 'the grade' is understandable, it can lead students to miss out on several learning opportunities that such an assessment can provide." (Ambrose et al, 2010)

Procedure

You can give a handout on the same day that you give back graded exams, or assign it as a homework following the exam. Students are then reflecting on their performance immediately. An example is shown below. Ambose suggests that the professor collects the exam wrappers to determine how students analyze their strengths and weaknesses in test-taking, but also how they studied for the exam. The professor can show some responses anonymously in class to demonstrate powerful study strategies, or to give coaching about how to modify study strategies.

The exam wrapper is then returned to students one week before the next exam, either in recitation or a smaller section where there is an opportunity for discussion. The students can discuss what they will try or modify from their previous study sessions for the exam.

Author

Rebecca Ciancanelli and others

Classroom Context

Various

Time Requirement

10 minutes

About this Project

This is one of a set of materials compiled for instructors to draw upon in order to frame non-traditional modes of classroom teaching for their students. Our hope is that these materials can help reduce any student resistance to such techniques.

Compiled by Stephanie Chasteen (University of Colorado Boulder Science Education Initiative): Stephanie.Chasteen@Colorado.edu

Other materials available online at www.colorado.edu/sei/fac-resource

Example

This form will help you to analyze your exam performance and find strategies that work best for you in learning the material for this course. Self-assessing your progress and adjusting your study strategies accordingly is what effective learners tend to do. Please answer the questions below sincerely. Your responses will have no impact on your grade, but they will inform the instructional team about how we can best support your learning. We will return your completed form before the second exam so that you can use your own responses to guide your approach to studying next time.

1. Approximately how much time did you spend preparing for this exam? _____
2. What percentage of your test-preparation time was spent in each of these activities?

    1. Skimming textbook chapters
    2. Reading textbook chapters thoroughly
    3. Reviewing your own notes
    4. Working on practice exam questions
    5. Reviewing materials from blackboard
    6. Other

        (Please specify: _____)

3. As you look over your graded exam, analyze where/how you lost points. Fill in the blanks below with the number of points you lost due to each of the following:

    1. Trouble applying definitions
    2. Trouble remembering structures
    3. Lack of understanding of a concept
    4. Not knowing how to begin a problem
    5. Careless mistakes
    6. Other

        (Please specify: _____)

4. Based on your responses to the questions above, name 3 things you plan to do differently in preparing for the next exam. For instance, will you just spend more time, change a specific study habit (if so, name it), try to sharpen some other skill (if so, name it), use other resources more, or something else?

What can we do to help support your learning and your preparation for the next exam?

Example #2

This activity is designed to provide you an opportunity to reflect on your exam performance and the effectiveness of your exam preparation. Your responses will not be graded, but you will receive credit for thoughtful reflection. Please be candid with your responses.

1. What was the score that your responses earned on the exam?
2. Please indicate your level of satisfaction with the score that you earned.
3. Approximately, how many hours did you spend studying for this exam?
4. Approximately, how many days before the exam did you begin studying for this exam?
5. The time I spent studying for this exam was sufficient.
6. I should have studied "smarter" for this exam.
7. Estimate the time spent on: Reading textbook sections for the first time Re-reading textbook sections Reviewing previously completed activities Reviewing your own notes Reviewing handouts Discussing course materials and questions with classmates Studying the relations among concepts and ideas
8. Carefully look over your exam. What question(s) did you do most poorly on? How could you have prepared better for this/these question(s)?
9. Estimate the percentage of points lost for each of the following reasons: Careless mistakes Familiarity with terms or vocabulary Knowing facts Understanding concepts Being able to apply concepts in new contexts Seeing connections among concepts and facts Other reasons
10. Please explain your responses in the section above if appropriate.
11. Reflect on your metacognitive skills. Compare your exam score with your knowledge survey score and expected exam score before (prediction) and after (postdiction) taking the exam. What could you do to improve in this area?
12. Based on your responses to the questions above, describe at least three (3) things that you plan to do differently in preparing for the next exam. For instance, will you spend more time studying, change a specific study habit, or try a new one? Please describe.
13. What can I do to help support your learning and preparation for the next exam?