Public Exam Workshop Handout

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What is a Public Exam?

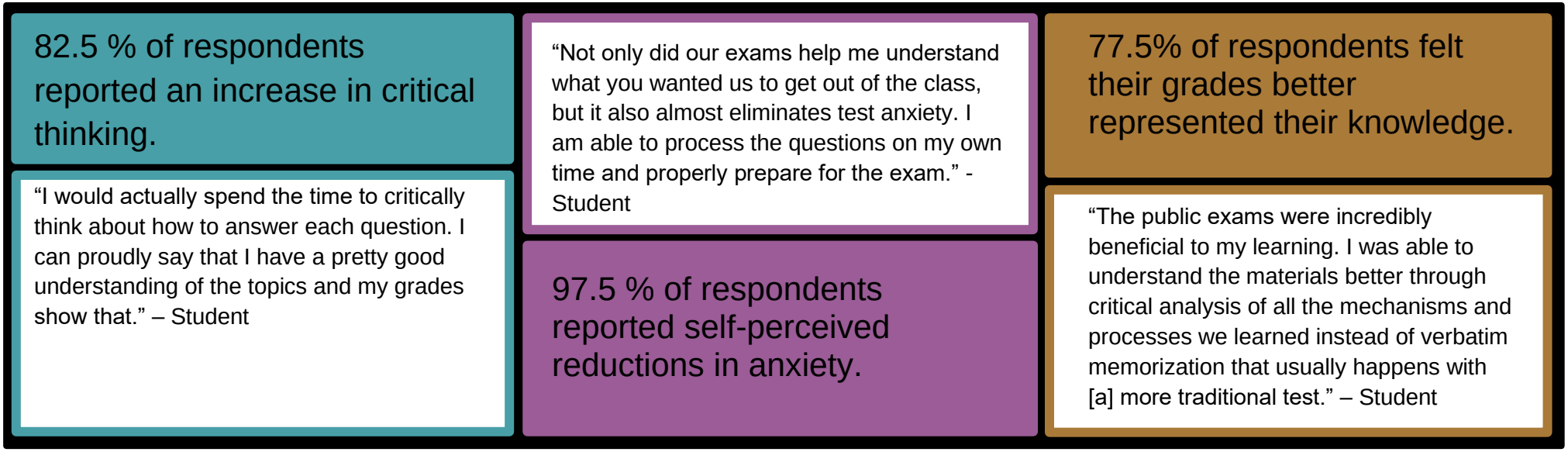
For a public exam students see a redacted version of the exam ahead of time and take a non-redacted version in class, like a normal exam. The draft version of the public exam is ideally shared with students at least a week before the actual exam and students are invited to ask clarifying questions or make editorial suggestions.

Exam questions can be modified/redacted in a variety of ways for the public exam:

- A graph may be provided without the associated question.
- A multiple-choice question could be shared without answer options.
- Words or phrases in a short answer question may be left blank.
- Particularly challenging questions may be fully shared.

Why give a Public Exam?

The public exam format gives students time to critically engage with content, ask clarifying questions, and identify mistakes or language in the questions that they find confusing. Using the public exam as a summative assessment has been shown to reduce anxiety, promote deep learning, and eliminate barriers for students who need more time to read and digest the instructions/question prompts on a test.



Graphic legend: This graphic includes student testimonials and data from 64 Sac State students surveyed during a Fall 2019 section of BIO 121 (Molecular Cell Biology

Example Question

The example below from BIO 160 (Ecology) helps students focus on the part of nutrient cycles that is the same for all cycles except the carbon cycle. Without this focus, students might overwhelm themselves by trying to memorize details of all five cycles presented in lectures and the textbook.

Public version

1. Draw a model of the biological loop for the [element] cycle using rectangles for pools and arrows for flows.
2. Explain how you would change the model if you were looking at the [element] cycle.

Exam-Day Version

1. Draw a model of the biological loop for the phosphorous cycle using rectangles for pools and arrows for flows.
2. Explain how you would change the model if you were looking at the carbon cycle.

Tips for Modifying

When modifying/redacting questions, you can ask yourself:

- Will this help students think more critically about the question?
- Can you fill the redacted space with multiple terms?
- Is it useful for students to study all those alternative terms?
- Will sharing a scenario without questions or questions without scenario be more effective for reducing reading time and confusion during the exam?

Additional Resources

- Article: "Public exams decrease anxiety and facilitate deeper conceptual thinking"
- Article: "The Public Exam System: Simple Steps to More Effective Tests"
- More examples from Kim and Cathy's classes

STEP 1
Post Public Exam for students.

Give students sufficient time to review in advance of the in-class exam.

- Tip 1: Provide 7-10 days in advance.
- Tip 2: post an "unredacted practice exam" from a previous semester.

Public Exam 3

The content of this public exam includes material from Lectures 9-13 & from Learning Module 4. To ask questions, please visit my student hours, post on the class Slack channel, or provide feedback anonymously on the shared Excel document.

1. Describe what would happen to the vesicular transport system required for outward flow in a cell if it had a non-functional [insert name of protein involved in vesicular transport]
2. You are studying a disease that occurs in individuals when an ER transmembrane protein called D2R is not inserted into the ER membrane of neurons. You notice that all the other ER transmembrane proteins are inserted into the ER membrane properly. What could be a cause of this disease? [Prepare for a multiple choice or short answer question}

STEP 2
Provide students with mechanism(s) for asking questions.

For example:

- During regular student hours.
- During exam review sessions.
- On Canvas discussion boards.
- As an assignment.

STEP 3
Revise & administer unredacted version of exam in class.

- Consider if any questions need revision, based on student feedback.
- Administer full exam in class, as you would normally administer an exam.

Exam 3

The content of this exam includes material from Lectures 9-3 & from Learning Module 4 and consists of both short answer and multiple choice.

1. Describe what would happen to the vesicular transport system required for outward flow in a cell if it had a non-functional ER protein translocator.
2. You are studying a disease that occurs in individuals when an ER transmembrane protein called D2R is not inserted into the ER membrane of neurons. You notice that all other ER transmembrane proteins are inserted into the ER membrane properly. What could be the cause of this disease?

   A. Mutation in the start/stop transfer sequence
   B. SRP is not expressed
   C. The ER protein translocator is not functional
   D. Oligosaccharyl transferase has a nonsense mutation
   E. All of the above