Effectiveness of a Post-exam as a learning aid

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“Mom, I’ll never learn to spell. The teacher keeps changing the word.”
"Yes, your dad did have a car when he was in the fourth grade, but HE was sixteen years old!"
• One of the challenges of teaching is to find effective techniques and practices
  – Then improve upon them

• Students spend considerable time preparing for exams, but often fail to reflect on information, or discuss it afterwards
• This study was conducted to assess student opinions of the effectiveness of giving a post-exam as a learning aid

—It was reviewed and approved by the SUU Institutional Review Board (IRB)
• In this instance, the post-exam was:
  – the same exam
  – given the next class period
  – taken in small groups
  • organized by the instructor
• 3 regular exams were scheduled throughout the semester
  – Exams were roughly 50 questions, consisting of true/false, multiple choice, and short answer
  – Students had 50 minutes to take each exam
• Post-exams were given, unannounced, during the class period following the original exam
  – After it had been graded, but not returned
  – Post-exams were optional
• A small amount of extra credit possible
Students were sorted into groups based on performance

• Each group: similar score distribution
• Groups ranged from 3-5 students

Group exams were not returned
• For variety, each post-exam was given in a different format
  1. Taken as a group
  2. Taken as a group, but groups were mixed up every 10 minutes
  3. A game show type format where groups compete against each other
• At the conclusion of each semester a short survey was available for voluntary completion
  – The survey was issued at the end of five semesters (Fall 2012-14) in two different courses
  – A total of 106 students completed the survey
• Likert-type scale
• Survey questions, 3 areas:
  1. How do you like the concept of post-exams?
  2. Preferred style of post-exam
  3. How much did you study?
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• Over 90% of students agreed that the post-exams helped them learn the material better
• About 85% of students agreed that the post-exam was an enjoyable experience
• Only 21% of students said that the only reason they participated was the possibility of extra credit
Most enjoyable format:
  – Game show: 51%
  – Group: 39%
  – Speed: 10%
Most beneficial format:

- Group: 52%
- Game show: 31%
- Speed: 17%
• How much time would you estimate you spent preparing before each exam?

a) Less than 2 hrs: 9.2%
b) 2-4 hrs: 50.8%
c) 4-6 hrs: 24.6%
d) 6-8 hrs: 13.8%
e) More than 8 hrs: 1.6%
• How much time would you estimate you spent reviewing material after each exam?

a) Not at all: 8.3%
b) Less than 1 hr: 66.7%
c) 1-2 hrs: 25.0%
d) More than 2 hrs: 0.0%
“Teacher, may I go home? My brain’s full.”
• Doing a post-exam requires a commitment of time and resources
  – Valuable class time
  – Extra exams to grade
  – Considerable time, thought invested in preparation
• However, student responses indicate that providing an opportunity for students to take exams in groups can be a valuable teaching tool.
• 100% of professors involved in this work agree that it is beneficial for the students and the class
  – Better understand material
  – Teach each other
  – Come together as group
• common enemy
Potential for future:
Examples of comments:

– This is my favorite part of your classes
– I feel post-test reviews really help cement things I thought were right but was slightly unsure
– I like all 3 ways of doing the reviews
Thank you very much!!

Questions??