



Effectiveness of a Post-exam as a learning aid

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The BACK FORTY

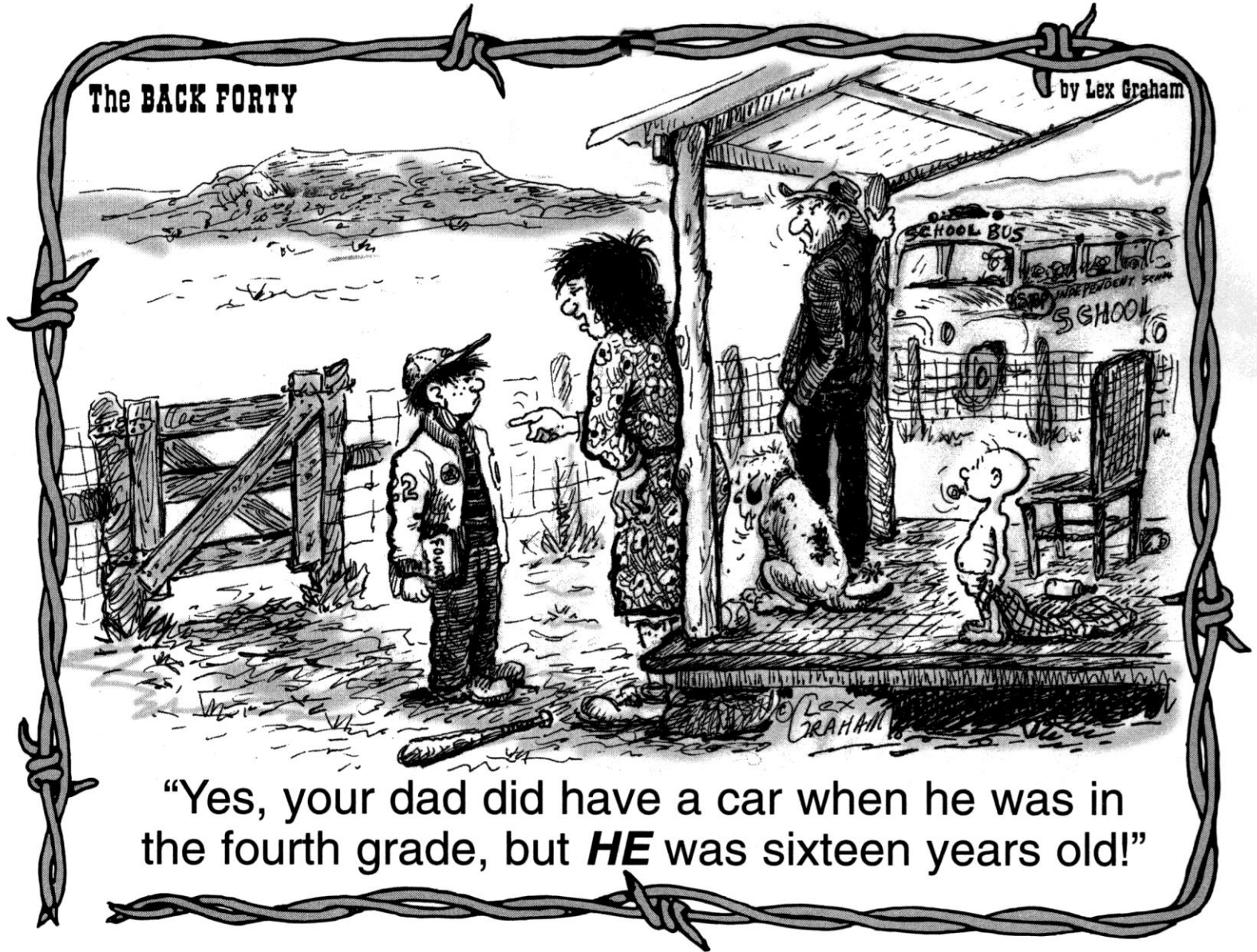
by Lex Graham



“Mom, I’ll never learn to spell.
The teacher keeps changing the word.”

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by Lex Graham



“Yes, your dad did have a car when he was in the fourth grade, but **HE** was sixteen years old!”

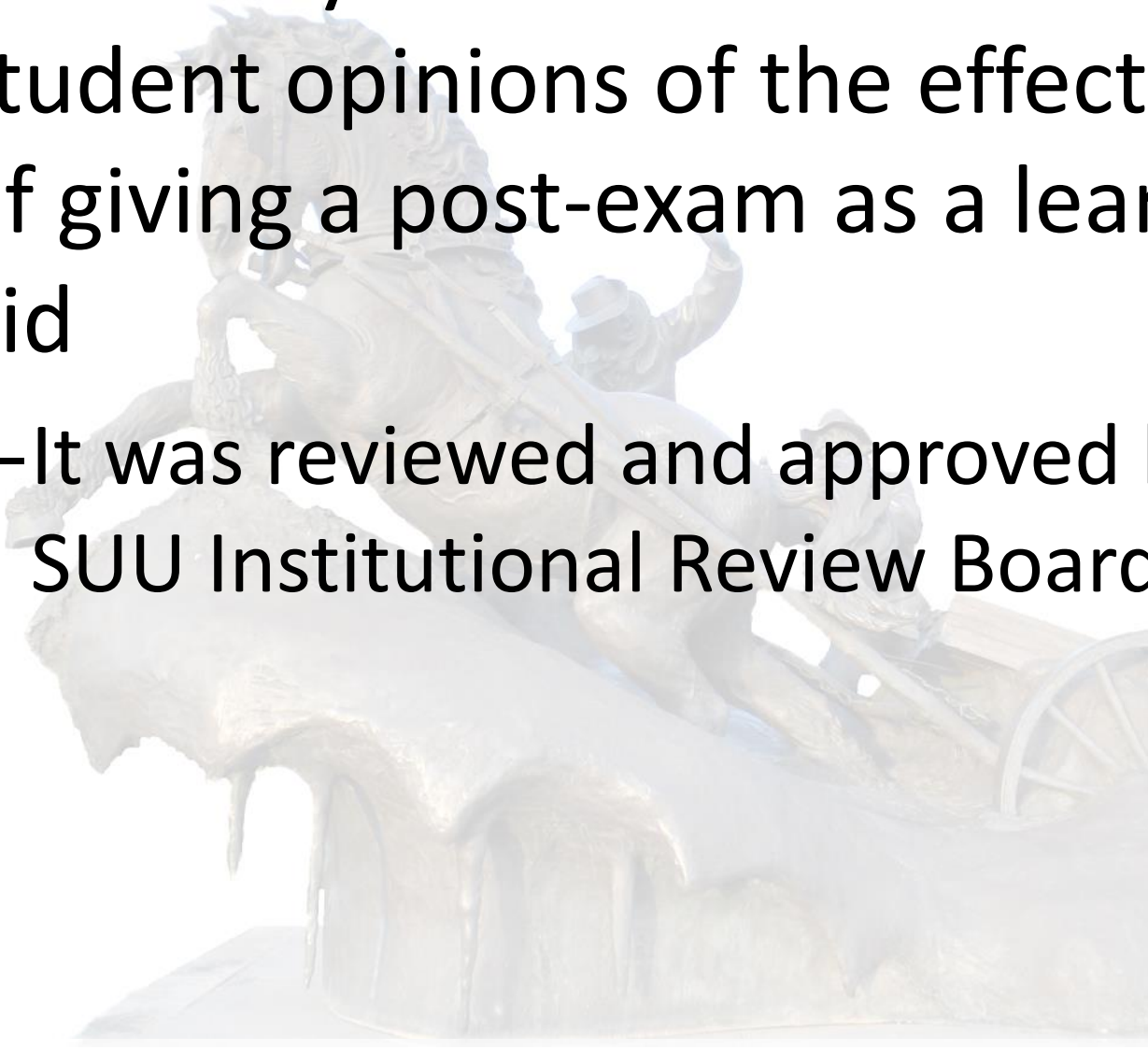
- One of the challenges of teaching is to find effective techniques and practices

- Then improve upon them

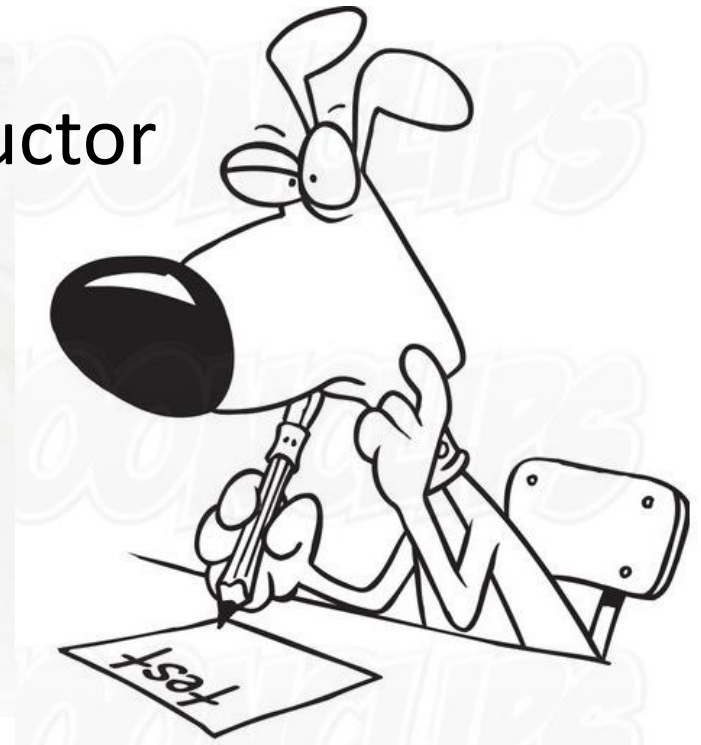


- Students spend considerable time preparing for exams, but often fail to reflect on information, or discuss it afterwards

- 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

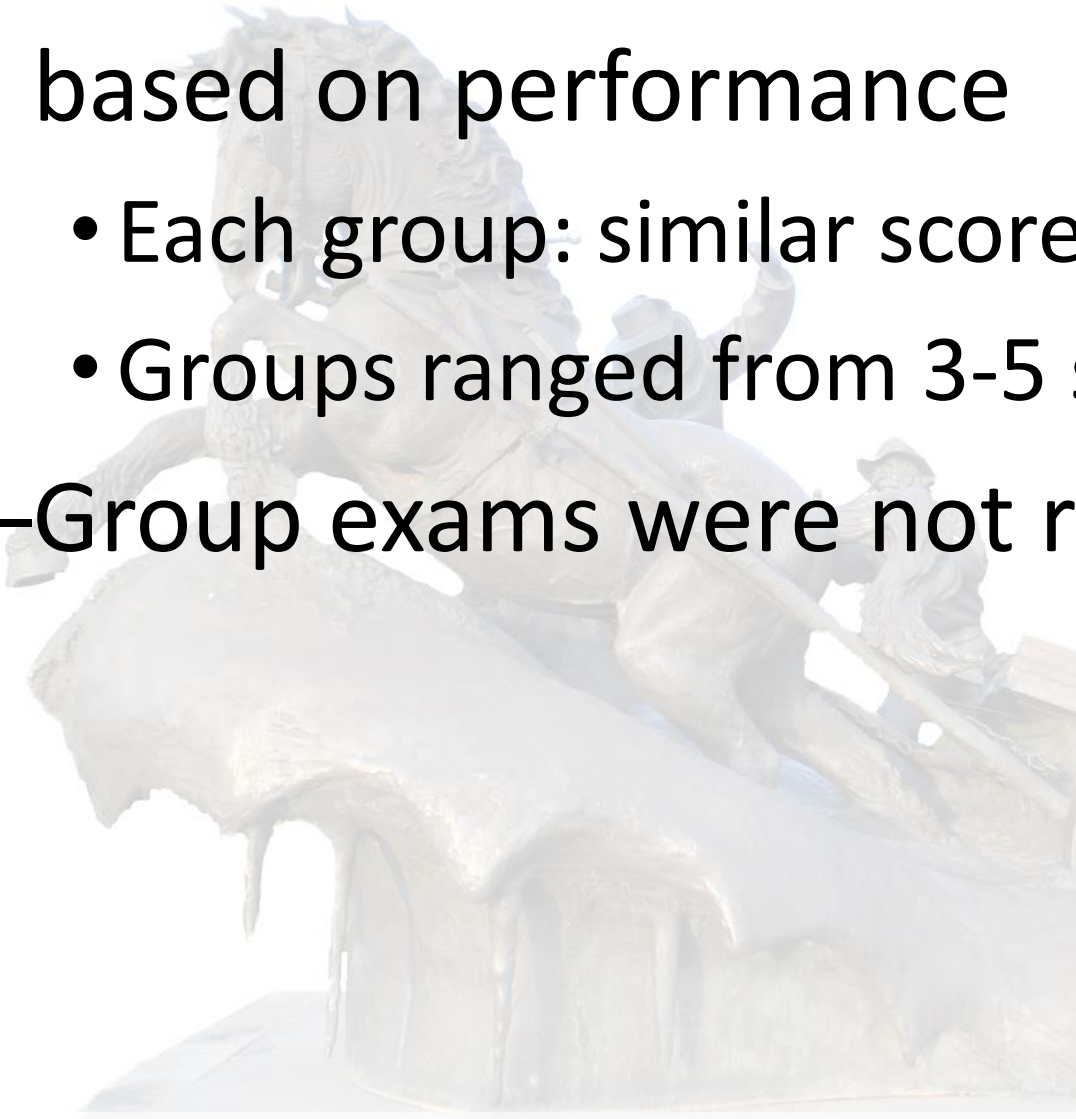


- 3 regular exams were scheduled throughout the semester
 - Exams were roughly 50 questions, consisting of true/false, multiple choice, and short answer
 - Students had 50 minutes to take each exam



- 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



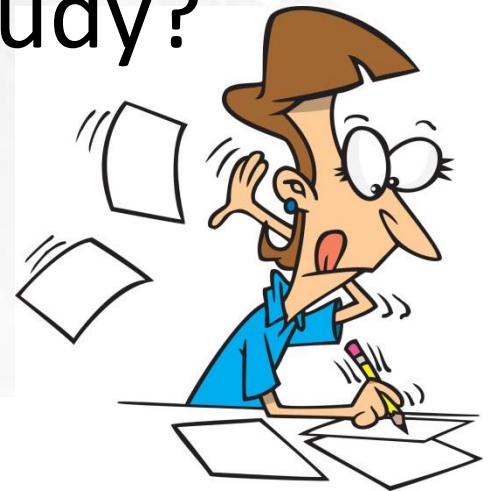
- For variety, each post-exam was given in a different format
 1. Taken as a group
 2. Taken as a group, but groups were mixed up every 10 minutes
 3. A game show type format where groups compete against each other



- 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?



Questions:

1 I enjoy doing posttest reviews

2 Posttest reviews help me learn the material better

3 If given the choice I would not do a posttest review unless there is extra credit

4 If I knew there was going to be a posttest review for extra credit, I would have studied after the exam

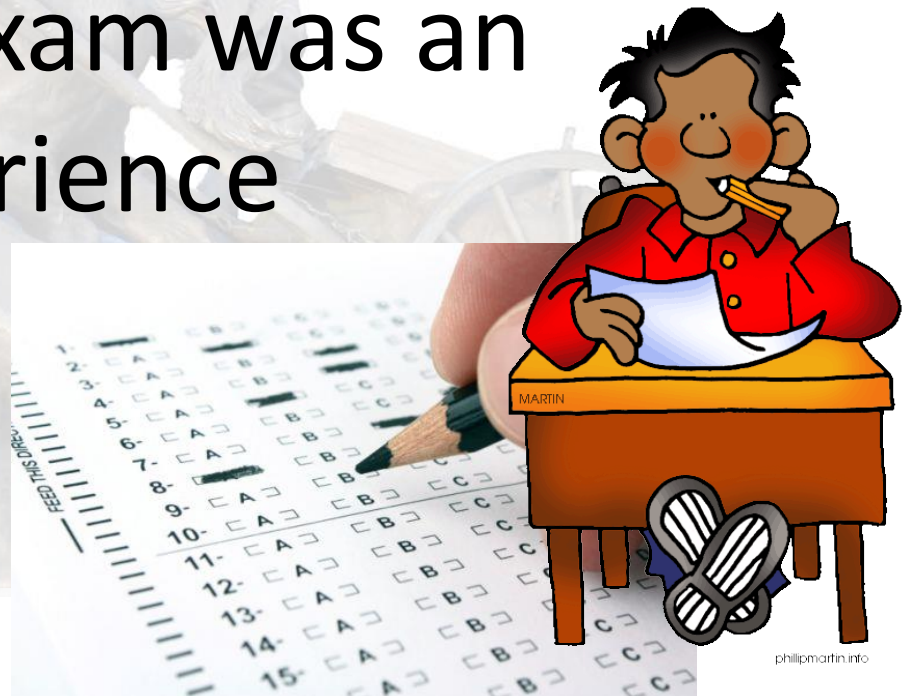
5 Which of the posttest review formats was the most enjoyable?

6 Which of the posttest review formats best helped you better understand the material

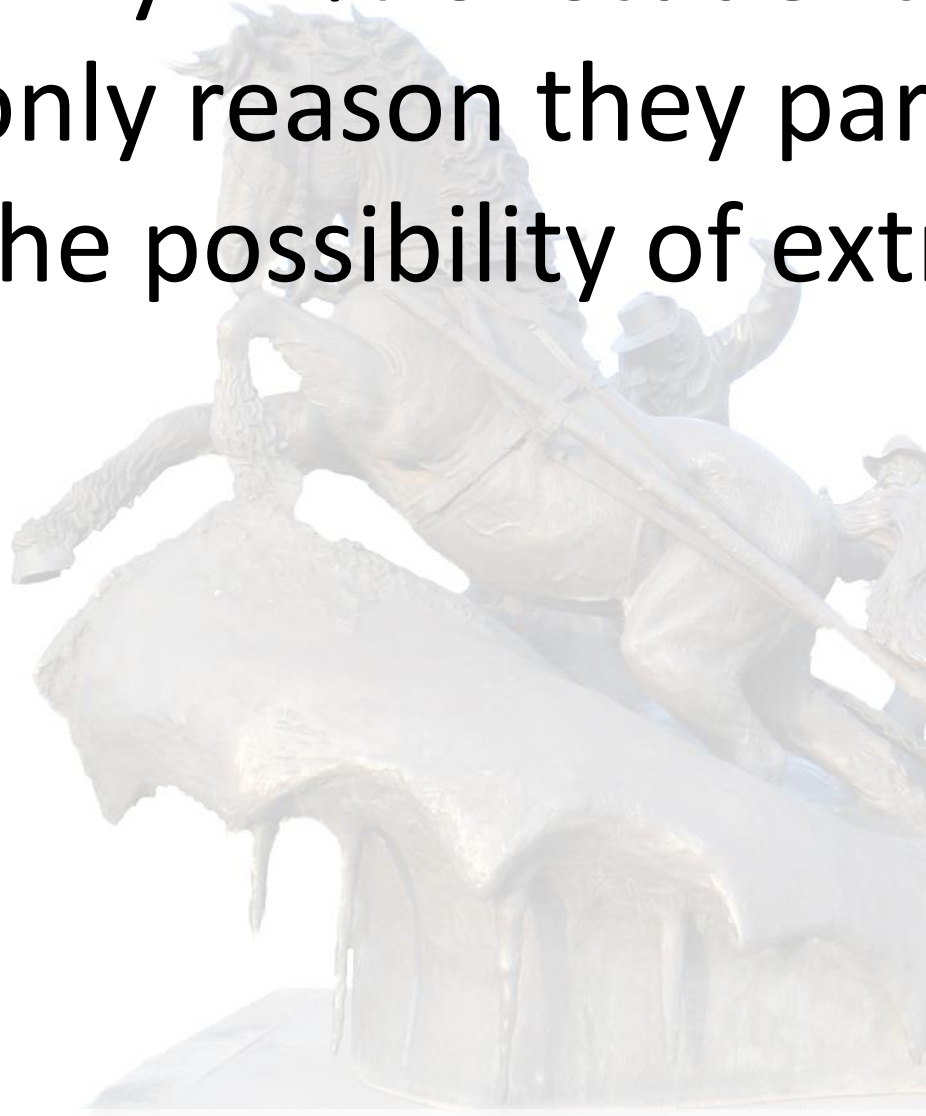
7 How much time would you estimate you spent preparing before each exam?

8 How much time would you estimate you spent reviewing material after each exam?

- 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%



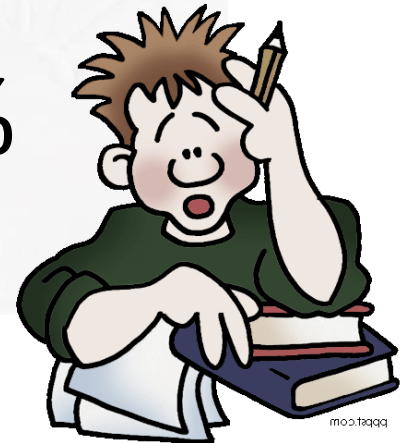
Most beneficial format:

- 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% |



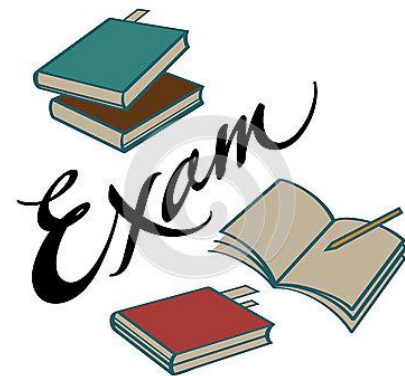
• How much time would you estimate you spent reviewing material after each exam?

a) Not at all: 8.3%

b) Less than 1 hr: 66.7%

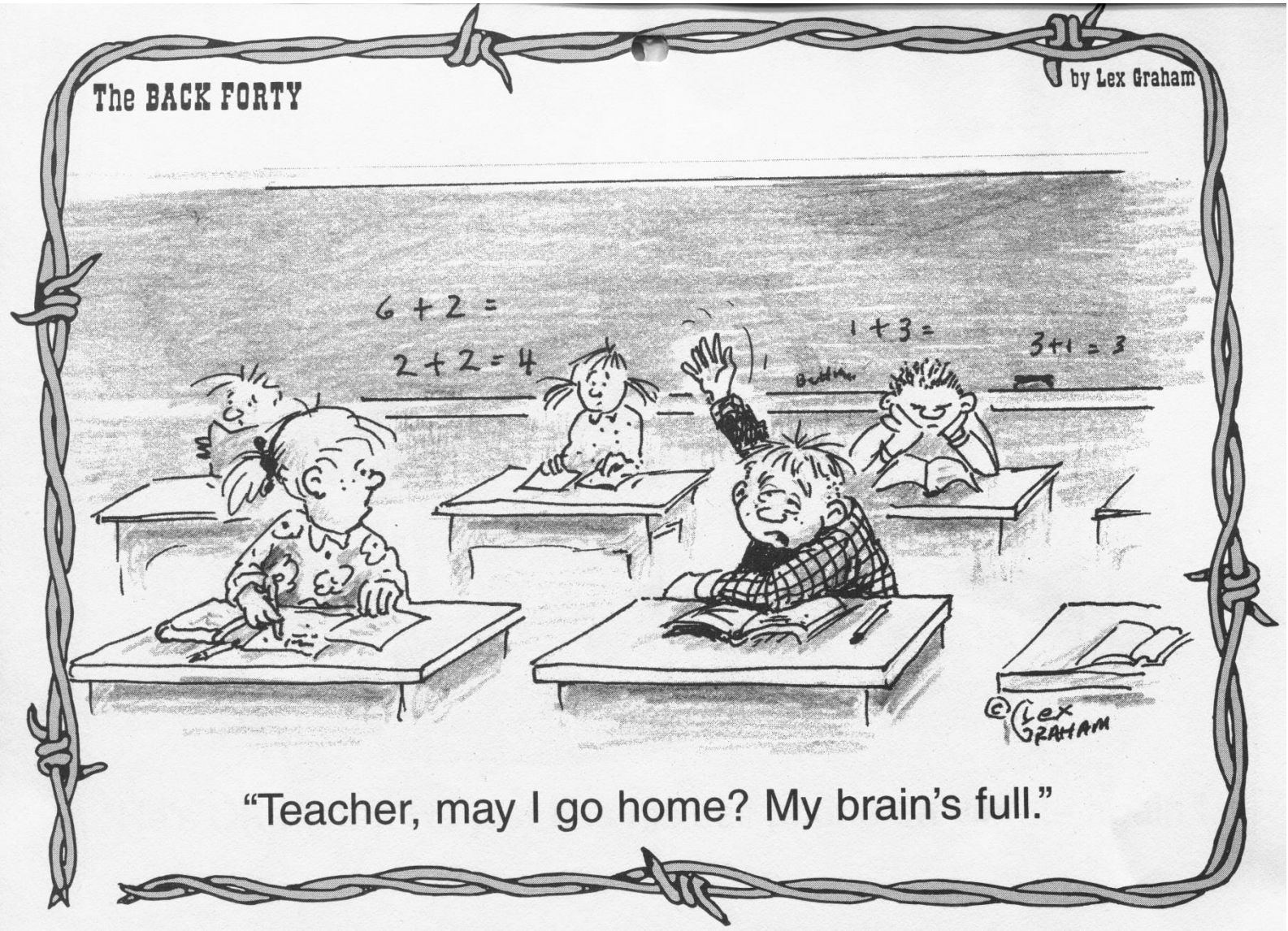
c) 1-2 hrs: 25.0%

d) More than 2 hrs: 0.0%



The BACK FORTY

by Lex Graham



“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





WARNING
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**ANGRY
MOB**

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??

