

Name:

Chapter Seven Test Research Methods

Date:

Math Academy 1

Estimate	/75
Part [A]	/40
Part [B]	/35
Part [C]	/ 0
Subtotal	/75
Explanations	/25
Total	/100

[A] Multiple Choice (done online in groups tomorrow).

[B] Write a paper on a hypothetical study about the effect of a buddy system that pairs advanced math students with students struggling in Math 2 or lower.

1. Decide on two or three realistic levels of the independent variable, including a control group and a condition involving regular meetings between students and their peer tutors.

2. Decide on a realistic and reasonably valid and reliable measured dependent variable.

3. Assign each group member to be in charge of one of the following sections: Introduction, Participants, Procedure, Discussion.

4. Write a brief paper that covers each of the criteria listed on the back of this page. The introduction and discussion should each be two or more paragraphs. Each group member is in charge of their section and is graded specifically on it as well as on the paper overall, but they do not need to be the sole author of their section.

5. Proofread the paper.

6. Decide as a class whether you want the due date to be today or tomorrow. If today, title it "Test 7" followed by your first names, and share it with me. If tomorrow, print and staple it. Either way, the deadline is 9:30 am.

[C] Bonus.

1. Carry out your study or a pilot study for it.

Scoring and Criteria for Part [B]

- 2** The criterion is clearly met.
- 1** The criterion is addressed to a meaningful but limited extent.
- 0** The criterion is not addressed in a meaningful way.

Introduction

- The introduction is interesting and draws the reader in.
- The conceptual dependent variable is clearly stated, valuable, and relevant to the independent variable.
- The hypothesized main effect and hypothesized interactions seem reasonable.

Participants

- Relevant demographics, including age, sex, race, and socioeconomic status, are stated.
- Moderator variables such as course or current math grade are included or are controlled for with justification for their exclusion.
- Each independent or moderator variable is correctly identified as experimental or quasi-experimental and as between-subjects or within-subjects.

Procedure

- All relevant details of the procedure are stated precisely without including details that are obvious or unnecessary.
- It is reasonable to expect that the participants will take part in the study as planned.
- The measured dependent variable is precisely defined and has reasonable reliability.
- The measured dependent variable has reasonable construct validity.
- The procedure does not create confounding variables.

Discussion

- If there are any possible confounding variables, their potential impact is examined.
- Nonconfounding extraneous variables are not called confounding, and they are not mentioned unless they create a major concern.
- A reasonable plan of action is proposed for next year's students.
- There is sufficient internal validity for the action plan to be valuable.
- The conclusion and action plan avoid validity concerns from sampling bias but are broad enough to be valuable.

Writing

- The paper is well written, free from significant or frequent errors, and easy to follow.