

Memory Experiment Project

General Information

Course: Psychology

Chapter: seven

Assigned: Tuesday, November 10

Due: Wednesday, December 9, plus partial due dates

Points: 80

Group Size: 2 to 5 people

Format: formal APA paper

Summary: Do an experiment based on a study from this chapter.

Bonus: For up to +10%, develop a hypothesis that is distinctly different, but still directly based on, the study you are citing, or for up to +20%, do so by combining concepts from two separate studies you are citing.

Directions

1. Choose and read a study on memory that uses a true experiment. If the study includes more than one experiment, choose one or more of them. It is fine if each group member only skims most the article, as long as each person reads in detail the sections that pertain to the steps they will be responsible for. For example, whoever is in charge of writing the procedure and collecting the data should read the procedure carefully.
2. Design an experiment you can carry out to replicate the experiment you chose. You can do an exact replication, or you can modify the procedure, independent variable, or dependent variable.
3. Write an introduction in which you summarize and cite the study you are replicating and discuss any other relevant information. Use this to hypothesize the results of your experiment.
4. Write a design section in which you state whether you will use a between-participants design or a within-participants design. Also state your independent variable and its levels and your dependent variable and how it will be measured.
5. Write a procedure section in which you precisely detail all of the important aspects of how you will carry out the experiment. Do not include obvious or unnecessary details.
6. Carry out a pilot study with 2 to 5 participants per condition.
7. Write a participants section in which you state the total number of participants and number of females, and briefly describe them in terms of any demographics that could relate to your dependent variable.
8. Write a results section in which you state your percentages or means and standard deviations in the context of your hypothesis (e.g., "As predicted, the semantic group ($M = 11.8$, $SD = 3.4$) greatly outperformed both the phonemic group ($M = 6.4$, $SD = 3.1$) and the structural group ($M = 3.6$, $SD = 2.3$).") Make a graph that clearly shows the purpose and result of your experiment at a glance. The graph will most likely be a bar graph with one bar per level.
9. Write a discussion section in which you discuss your results with respect to your hypothesis and to past research. Mention any methodological issues that may have affected your results, and consider how you could change your procedure to eliminate these for the actual study.
10. Write an abstract paragraph in which you summarize the introduction, procedure, results, and discussion in about two sentences each.
11. Make an APA-format references list, even if it includes only one study.
12. Put your paper together into one document in the following order: abstract, introduction, participants, design, procedure, results, discussion, references. Distinguish the abstract by different formatting (e.g., wider margins and single spacing), and label each other section except the introduction. Make sure each section of your paper is written in paragraphs (not lists) and is all in past tense.
13. Next to each rubric on the back of this sheet, write an integer suggested score for your paper.
14. Staple your finished paper and put it in a folder. In the other pocket, put the following items: list of all participants' names and which condition each was in, all materials (wordlists, etc.) whether printed or read, and this sheet with suggested scores on the back.
15. Rewrite your procedure section based on your observations in the pilot study and feedback from the first draft.
16. Carry out the full study, with 12 or more participants in each condition.
17. Update your participants section with the actual participants.
18. Update your results section with the actual results.
19. Do a statistical test on your data. In your results section, state the type of test you used, its resulting p value, and whether or not this results in statistical significance.
20. In three or more paragraphs, write a discussion section in which you discuss your results with respect to your hypothesis and to past research. Be sure not to disregard your statistical conclusion in your results section. Mention any methodological issues that may have affected your results. Discuss one or more possible new hypotheses you could generate based on the results of your current study.
21. Adjust your abstract as needed based on the results and discussion of the actual study.
22. Redo steps 12-14 to submit your final paper.

Due Dates

Assignments are due before class begins, and must be typed.

Steps 1-5	Monday, November 16
Steps 6-14	Friday, November 20
Step 15	Monday, November 30
Steps 16-22	Wednesday, December 9

Scoring

[A] The paper is well written.

- 10 The paper flows well, is free of major errors such as incomplete sentences, has few minor errors, and is appropriately broken into paragraphs.
- 8-9 The paper is fairly well written but appears to be more of a draft than a final paper.
- 5-7 The paper has major errors or no paragraph breaks.
- 1-4 The paper is poorly written.

[B] The introduction conveys the scope and purpose of the paper.

- 10 The introduction clearly and thoroughly explains the study you are replicating and the psychological theory behind it, and how this relates to the hypothesis.
- 8-9 The introduction clearly describes the study you are replicating, the psychological theory behind it, and how this relates to the hypothesis.
- 5-7 The description of the study you are replicating leaves out crucial details or does not discuss psychological theory.
- 1-4 The description of the study you are replicating is significantly vague or incorrect.

[C] The procedure is complete and precise.

- 10 The procedure is precise enough that someone could replicate the study exactly how you carried it out, but it does not include unnecessary detail.
- 8-9 The procedure is fairly precise and succinct.
- 5-7 The procedure is ambiguous in an important aspect.
- 1-4 The procedure is significantly vague.

[D] The results are clearly and accurately portrayed.

- 10 The results are stated clearly and in context, and the graph is well labeled and as simple and intuitive as possible.
- 8-9 The results are stated in context but the graph has minor imperfections or is unnecessarily complicated.
- 5-7 The results are stated but the graph is not appropriate for the data.
- 1-4 The data do not match the design, or the graph is widely inaccurate or difficult to understand.

[E] The discussion is insightful.

- 10 The discussion critically analyzes the results with respect to the introduction and method, and the discussion of future research draws directly from the results and from past research.
- 8-9 The discussion analyzes the results with respect to the introduction and method, and it discusses related future research.
- 5-7 The discussion discusses the results and their implications.
- 1-4 The discussion summarize the results and their implications.

[F] The due dates are met.

- 10 Every section is complete and turned in on time.
- 8-9 One due date has incomplete or handwritten work.
- 5-7 Two due dates have incomplete or handwritten work, or one is missed.
- 1-4 More than one due date is missed.

[G] All directions are followed.

- 10 The sections are in order, the graph is within the results section, the citations and references are in APA format, the paper is all in past tense, and all other directions are followed.
- 1-9 One or more aspects of the project are omitted, incomplete, or not done as directed.

[H] The final product looks professional.

- 10 The layout is reasonably designed, easy to read, and a final product rather than a collection of separate components.
- 1-9 The paper lacks professionalism in one or more aspects.