

# Preliminary Research Project

Full Version

## Summary

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**Course:** Psychology

**Chapter:** two

**Assigned:** Friday, September 4

**Due:** Wednesday, September 16

**Points:** 50

**Group Size:** 1 to 5 people

**Format:** formal paper

**Summary:** Carry out a true experiment, and report it in a formal research paper.

**Bonus:** For up to +30%, develop your hypothesis based on one or more journal articles and cite them in your introduction and discussion.

## Directions

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1. Develop a hypothesis that you can test with an experimental (not quasi-experimental) design.
2. Write an Introduction section in which you explain and justify your hypothesis.
3. Write a Design section stating that your study is experimental and stating whether it is between-participants or within-participants. Also state your independent variable and its levels, and your dependent variable and (if applicable) your operational definition for it.
4. Collect data from at least 20 participants. Be sure all ethical guidelines are followed, including approval, informed consent, confidentiality of data, lack of coercion, right to withdraw, and debriefing.
5. Write a Participants section describing your sample by stating the sample size, age range, number of females, approximate racial breakdown, how and from where the participants were recruited, and any aspects of the sample that could lead to sampling bias.
6. Write a Procedure section describing how you carried out your experiment. Be as thorough as you can without putting in details that are irrelevant to your hypothesis.
7. For each condition, calculate the sample proportion or the sample mean and sample standard deviation.
8. Write a Results section stating the statistics from step 7 and how they relate to your hypothesis.
9. Create a bar graph to compare the proportions or means from step 7.
10. Write a Discussion section discussing your findings. Include any methodological issues, such as possible confounds.
11. Write an Abstract summarizing your introduction, procedure, results, and discussion all in one paragraph.
12. Put together a formal paper, consisting of the following sections in the order listed: Abstract, Introduction, Design, Participants, Procedure, Results, Discussion. Make sure that each section consists of one or more complete paragraphs and no lists.
13. Proofread the paper. In particular, make sure that paragraphs are used appropriately, there are no incomplete sentences, and there are few if any writing errors.

## Suggested Division of Work

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Whole Group: Step 1

Leader: Direct the whole project by arranging a timeline for steps, helping with each step as needed, and collecting each completed step.

Designer: Steps 2, 3, 10

Data Collector: 4, 5, 6

Reporter: 7, 8, 9

Publisher: 11, 12, 13

## Scoring

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### **[A] The procedure is clearly explained and adequately tests the hypothesis.**

- 10 The procedure is appropriate for the hypothesis and is explained in enough detail that someone reading it could conduct it exactly how you did in all important aspects.
- 8-9 The procedure is appropriate for the hypothesis and explained with some clarity and detail.
- 5-7 The procedure introduces a significant confound or needs clarification to be understood.
- 1-4 The procedure does not involve random assignment, poorly addresses the hypothesis, or is very difficult to understand.

### **[B] The results are clearly displayed in the graph.**

- 10 It is easy to quickly understand the results and conclusion by looking at the graph.
- 8-9 The graph is easy to understand, and all relevant information is accurately portrayed.
- 5-7 The graph reasonably displays the results but is not clearly labeled, includes irrelevant information, has minor inaccuracies, or is somewhat misleading.
- 1-4 The graph is significantly incorrect, misleading, or confusing.

### **[C] The paper is well written.**

- 10 The paper is in the proper format, flows well, and is free from major or frequent errors.
- 8-9 The paper makes good use of paragraphs and is free from major errors.
- 5-7 The paper lacks paragraph breaks, is not all in paragraph form, or contains major errors such as incomplete sentences.
- 1-4 The writing quality is consistently poor throughout the paper.

### **[X] All steps are completed.**

- 10 All stated directions are followed.
- 1-9 One or more aspects of the project is omitted or incomplete.

### **[Y] The final product is polished and professional.**

- 10 The paper is titled, stapled, and consistently formatted, and work by different people is well integrated.
- 1-9 Not all of the above requirements are met.

# Preliminary Research Project

Abbreviated Version

## Summary

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**Course:** Psychology

**Chapter:** two

**Assigned:** Friday, September 4

**Due:** Wednesday, September 16

**Points:** 40

**Group Size:** 1 to 3 people

**Format:** formal paper

**Summary:** Design a true experiment, and predict the outcome.

## Directions

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1. Develop a hypothesis that could be tested with an experimental (not quasi-experimental) design.
2. Write an Introduction section in which you explain and justify your hypothesis.
3. Write a Design section stating that the study is experimental and stating whether it is between-participants or within-participants. Also state the independent variable and its levels, and the dependent variable and (if applicable) the operational definition for it.
4. Write a Procedure section describing how the experiment would be carried out. Be as thorough as you can without putting in details that are irrelevant to your hypothesis.
5. Create a bar graph to display how you would predict the results would turn out. Clearly indicate that the graph represents a prediction, not actual data.
6. Write an Abstract summarizing your introduction, procedure, and predicted results.
7. Put together a finished paper in the following order: Abstract, Introduction, Design, Procedure, Predicted Results. Make sure it is one coherent paper (using the same font all the way through and not leaving space between sections), rather than separate assignments stapled together. Proofread the paper.

## Scoring

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**[A] The procedure is clearly explained and adequately tests the hypothesis.**

- 10 The procedure is appropriate for the hypothesis and is not ambiguous any important aspect.
- 8-9 The procedure is appropriate for the hypothesis and explained with some clarity and detail.
- 5-7 The procedure introduces a significant confound or needs clarification to be understood.
- 1-4 The procedure does not involve random assignment, poorly addresses the hypothesis, or is very difficult to understand.

**[B] The results are clearly displayed in the graph.**

- 10 It is easy to quickly understand the predicted results by looking at the graph.
- 8-9 The graph is easy to understand, and all relevant information is accurately portrayed.
- 5-7 The graph reasonably displays the predicted results but is not clearly labeled, includes irrelevant information, or is somewhat misleading.
- 1-4 The graph is significantly misleading or confusing.

**[X] All steps are completed.**

- 20 All stated directions are followed.
- 1-19 One or more aspects of the project is omitted or incomplete.

**[Y] The final product is polished and professional.**

- 10 The paper is titled, stapled, and consistently formatted, and work by different people is well integrated.
- 1-9 Not all of the above requirements are met.