

# Research Proposal Project

## General Information

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**Course:** Math Academy I

**Chapter:** seven

**Assigned:** Monday, March 6

**Due:** Tuesday, March 28

**Points:** 40

**Group Size:** 1 to 3 people

**Format:** formal paper

**Summary:** Design a research proposal.

**Bonus:** For up to +25%, discuss your prediction using citations of scientific journal articles.

## Directions

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1. Come up with an independent variable that you think would influence a specific dependent variable.
2. Write an introduction to your research, in which you explain your research question conceptually, predict the results, and carefully justify your prediction. If you can, begin the introduction with a hook that draws the reader in by being intriguing or by illustrating the importance of the topic. Use at least two paragraphs.
3. Write a design section in which you state the type of design you would use, such as between-participants quasi-experimental, and how you would define the variables used.
4. Write a participants section in which you describe your proposed sample and how it would be collected. Do this according to a goal of having an ideal representative sample that is realistic to obtain.
5. Write a procedure section in which you describe exactly how the experiment would be carried out. Include all details that would affect the outcome and that might be ambiguous if unstated. Do not include details that are irrelevant to the variables or that are obvious.
6. Write a discussion section in which you consider what it would mean if your results turn out as predicted. Return to your justification of the prediction, but also explore additional possible factors, other than coincidence, that could provide a reason why your results would turn out as predicted. If possible, come up with a follow-up study that could test if your justification, rather than the other possible factors you mentioned, is the actual reason for the results turning out as predicted. Use at least two paragraphs.

## Scoring

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**[A] Terminology is used appropriately.**

- 10 Research methods terms are used with no major inaccuracies or omissions and few if any minor ones.
- 8-9 Research methods terms are used with no major inaccuracies and few omissions.
- 5-7 There are some major inaccuracies in use of research methods terms, but overall the use of research methods terms in the paper is helpful.
- 1-4 Research methods terms are clearly misunderstood, to the point where their usage makes the paper more confusing.

**[B] The relationship between the variables is explored critically.**

- 10 The prediction is carefully justified, any reasonable alternative explanations are clearly identified, and ways to differentiate between competing explanations are explored.
- 8-9 The prediction is carefully justified, and any major alternative explanations are clearly identified.
- 5-7 The prediction is justified, and one or more alternative explanations are identified.
- 1-4 The prediction is not justified, or no alternative explanations are considered.

**[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 paper is well written and well presented.**

- 10 The paper flows well and it is mostly free of grammatical or other errors, reasonably formatted, appropriately titled, cleanly printed, stapled, etc.
- 1-9 The paper does not appear to be a formal, proofread, finished product.