Response Bias Project

In this project, your team will design and conduct an experiment to investigate the effects of response bias in surveys. You may choose the topic for your surveys, but you must design your experiment so that it can answer at least one of the following questions:

- Can the wording of a question create response bias?
- Does providing additional information create response bias?
- Do the characteristics of the interviewer create response bias?
- Does anonymity change the responses to sensitive questions?
- Does manipulating the answer choices/order of answer choices change the response?
- Can revealing other individuals' answers to a question create response bias?

1. Write a proposal describing the design of your experiment. Be sure to include the following items:

(a) Your chosen topic and which of the bulleted questions you'll try to answer.

(b) A detailed description of how you will obtain your subjects (minimum of 50). Your plan must be practical!

(c) An explanation of the treatments in your experiment and how you will determine which subjects get which treatment.

(d) A clear explanation of how you will incorporate the principles of a good experiment and avoid potentially confounding variables.

(e) Precautions you will take to collect data ethically.

Here are two examples of successful student projects.

- "Brushing your teeth" by Kristy K. and Carmen C.:
  - Version A: "Do you brush your teeth for the recommended 2 minutes?" (Subjects answered verbally: 72.5% said "Yes.")
  - Version B: "Do you brush your teeth for the recommended 2 minutes?" (Subjects answered anonymously: 37.5% said "Yes.")
- "Cartoons" by Sean W. and Brian H.:
  - Version A: "Do you watch cartoons?" (90% said "Yes.")
  - Version B: "Do you *still* watch cartoons?" (60% said "Yes.")

2. Once your teacher has approved your design, carry out the experiment. Record your data in a table.

3. Prepare a poster that includes a brief introduction, a summary of your data collection process, the data you collected, graphs and summary statistics, the answer to your question of interest, and a discussion of any problems you encountered and how you dealt with them.

Scoring Rubric

Response Bias Project	4 = Complete	3 = Substantial	2 = Developing	1 = Minimal
Introduction	• Describes the context of the research • Has a clearly stated question of interest • Provides a hypothesis about the answer to the question of interest • Question of interest is of appropriate difficulty	• Introduces the context of the research and has a specific question of interest • Suggests hypothesis OR has appropriate difficulty	• Introduces the context of the research and has a specific question of interest OR has question of interest and a hypothesis	• Briefly describes the context of the research
Data Collection	• Method of data collection is clearly described • Includes appropriate randomization • Describes efforts to reduce bias, variability, confounding • Quantity of data collected is appropriate	• Method of data collection is clearly described • Some effort is made to incorporate principles of good data collection • Quantity of data collected is appropriate	• Method of data collection is described • Some effort is made to incorporate principles of good data collection	• Some evidence of data collection
Graphs and Summary Statistics	• Raw data is included in a two-way table (categorical) or in lists (quantitative) • Appropriate graphs are included • Graphs are neat, easy to compare, and clearly labeled, including clear identification of treatments • Appropriate summary statistics are included in discussion (e.g., percentages for categorical data, means for quantitative data)	• Appropriate graphs are included • Graphs are neat, clearly labeled, and easy to compare • Appropriate summary statistics or raw data are included	• Graphs and summary statistics are included	• Graphs or summary statistics are included
Conclusions	• Uses the results of the study to correctly answer question of interest • Discusses what inferences are appropriate based on study design • Shows good evidence of critical reflection (discusses possible errors, limitations, etc.)	• Makes a correct conclusion • Discusses what inferences are appropriate or shows good evidence of critical reflection	• Makes a partially correct conclusion • Shows some evidence of critical reflection	• Makes a conclusion
Presentation, & Communication	• Has a clear, holistic understanding of the project • Report is well organized, neat, and easy to read • Report included pictures of data collection in progress and is visually appealing • Oral presentation is well organized	• Has a clear, holistic understanding of the project, but report is unorganized, lacks visual appeal, or oral presentation is not organized	• The report and oral presentation have several problems	• Communication and organization are poor

* *Note: It is possible to receive a score of 0 in any of these categories.*