**AP Statistics First Semester Project: Response Bias**

**The Project:** You and your partner (or you by yourself) 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 peoples’ answers to a question create response bias?

**Proposal (25 points):**

* The proposal is due: \_\_\_\_\_\_\_.
* The proposal will be worth 25% of the grade, so don’t treat it casually.
* If the proposal isn’t approved the first time, you will need to resubmit it for a reduced grade. You must attach the original proposal to any resubmissions.

In your proposal, you should:

* Describe your topic and state which type of response bias you are investigating
* Describe how you will obtain your subjects in an unbiased manner (minimum sample size is 50). This must be practical!! Your population does not need to be from school nor should you interrupt any classes.
* Describe what your questions will be and how they will be asked, including how you will incorporate the principles of a good experiment and avoid potentially confounding variables. You should also indicate what your hypotheses are. Convince me that you have a good design!

**Poster (75 points):**

* The poster is due: \_\_\_\_\_\_\_\_.
* The key to a good statistical poster is communication and organization. Make sure all components of the poster are focused on answering the question of interest.
* The poster should be standard sized and not on foam board. Make sure the poster is light enough to be hung on the wall.

The poster should include:

* Title (in the form of a question).
* Introduction. In the introduction you should discuss what question you are trying to answer, why you chose this topic, and what your hypotheses are.
* Data Collection. In this section you will describe how you obtained your data. Be specific.
* Graphs and Summary Statistics. Make sure the graphs are well labeled, easy to compare, and help answer the question of interest. The graphs should “stand alone”!
* Discussion and Conclusions. In this section, you will state your conclusions. You should also discuss any errors you made, what you could do to improve the study next time, and any other comments based on your own critical reflection on the project.
* Live action pictures of your data collection in progress.

**Presentation:** Each pair (or individual) will be required to give a 5 minute oral presentation to the class. Both members need to participate equally and should be prepared to answer questions.