Journal Entry 1: Surveys

The following two questions appeared on the “Official Presidential Job Performance Poll” on Donald Trump’s website on December 29th, 2017. What’s BAD about these survey questions? What would be considered weaknesses of using this survey as a research tool? What should be changed to make this a more appropriate survey?

How would you rate President Trump’s first year in office (2017)?
- Great
- Good
- Okay
- Other

How would you rate President Obama’s first year in office (2009)?
- Great
- Good
- Okay
- Poor
Journal Entry 2: Data

Compare the following data sets of student test scores. Which class do you think performed “better”? Explain why and describe which statistical measures you would incorporate to determine your answer.

CLASS A:
• 70%, 75%, 80%, 85%, 90%, 95%, 100%

CLASS B:
• 45%, 50%, 100%, 100%, 100%, 100%, 100%
As class is about to start, the school principal enters the room. How will this change the dynamic of class?

- Will students act differently? If so, how?
- Will the teacher act differently? If so, how?
- What are the advantages/disadvantages to the principal being in the room?
A positive correlation is when two variables increase or decrease together (“the more this goes up, the more that goes up”). What are three positive correlations you’ve noticed from your own life/personal experience?

A negative correlation is when one variable increases while another variable decreases (“the more this goes up, the more that goes down”). What are three negative correlations you’ve noticed from your own life/personal experience?

You’ve probably been thinking of these as one variable CAUSING another variable, even though that wasn’t specifically described in your instructions. Looking back over your answers, can you think of potential third (and fourth, fifth, sixth…) variables that might be affecting both of the variables you mentioned?
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Journal Entry 5: Experimental Causation

Does studying improve exam performance?
- You might want to intuitively say “yes”… but how do you KNOW for sure?
- What evidence supports your answer?
- How would you go about proving your answer?
- What could possibly DISPROVE your answer?
- What other factors could potentially affect exam performance besides studying?
Research Methods Journal

Journal Entry 6: Experimental Ethics

All of the following are ethical guidelines required to conduct an experiment. Your job is to rank them from most important to least important and explain your ranking decisions.

- Cannot cause any physical or emotional harm to participants
- Cannot violate any laws
- Must obtain informed consent and debrief after
- Lying to participants is acceptable as long as told afterward
- Results and participant identification must be kept confidential
- Animal harm and death is acceptable if it benefits humans
Journal Entry 7: Experimental Design

You’ve been hired to create and conduct an experiment to test whether being in love as high school students affects GPA.

Answer the following:
- What’s your hypothesis?
- What’s your Independent Variable (IV)?
- What’s your Dependent Variable (DV)?
- What’s your experimental group(s)?
- What’s your control group?

Address the following:
- How will you operationally define your variables?
- How will you statistically analyze your results?
- How will someone replicate your experiment?
- Are there any flaws or confounding variables?
- Are there any ethical considerations?