

Homework #2 (Theories, Hypotheses, Research Design)
PSCI 2300 - Spring 2018 (Dr. Hensel)

This homework assignment is due at the beginning of class (i.e., before lecture starts) on **Monday, February 5**. Any work turned in after lecture begins that day (even if only a few minutes into class) will be assessed a late penalty. Also, note that all work must be your own -- students found to have copied their answers from other students (or to have had their answers copied by other students) will receive automatic zero grades on this assignment, and may face further disciplinary action.

Please type your responses to each question.

For the purposes of this assignment, assume that you are a political scientist interested in studying the causes of voting.

1. Suggest one simple (two variables) research hypothesis about an individual's decision to vote (or not vote) in an election.
2. Explain which variable in your hypothesis is the independent variable, and which is the dependent variable.
- 3 [2 points]. Present a theoretical story about *why* your hypothesis works the way that it does. (Why does this independent variable cause this dependent variable? That is, what are the individuals thinking when they decide whether or not to vote, or how/why do these influences make them more likely to vote?)
4. If you were to test this hypothesis, what would be the null hypothesis? (Remember, this is the hypothesis that there is no systematic relationship between these two variables; if this is supported by the evidence, you can conclude that your hypothesis is not accurate for this set of cases.)
5. Discuss a second implication of your theory. That is, if your theoretical story is correct, what is one other prediction that it would make (i.e., one other testable hypothesis) about the world, besides the original hypothesis about a factor that makes individuals more or less likely to vote? (This doesn't have to be about voting; it just needs to be something else that your theory would predict besides the likelihood that an individual will vote in any given election.)
- 6 [2 points]. Suggest one possible way that your hypothesized relationship could be spurious rather than causal (i.e., one other factor that might make the variables appear to covary, but only because they are each associated with this factor, and not because there is any causal relationship between them). Be sure to explain the logic of why both of your variables might be related to the other factor.
7. Discuss how your hypothesis could be tested using an experimental design. What would the "treatment" be that you would administer to the test/treatment group, and what would the "placebo" be that you would administer to the control group? What outcome would you expect to observe for each of these two groups if your hypothesis is correct?
8. Discuss one potential weakness of testing your hypothesis experimentally (i.e., one reason to doubt that the results of the experiment would accurately characterize individuals' actual decisions to vote outside of the laboratory setting where the experiment took place).