

Dr. Smithson, a professor at the University of Whatchamacallit, wanted to know if college students drank alcohol, would it make them more flirtatious. He designed an experiment and required his 400 (n=400) students to take part. He decided he would not tell them after the study what the study was about because they were just undergrads and didn't need to know. Take his idea and apply the following:

#### Part A. Research Prep

Write a Hypothesis for this experiment. I believe the higher the amount of alcohol the students consume the more flirtatious they will become.

What is the IV? The amount of alcohol

What is the DV? The level of flirtation or amount flirted

Make up an Operational Definition of the IV (how can they manipulate this variable)? By giving varying amounts of alcohol to the students (not a good idea!)

Make up an Operational Definition of DV (how can they measure this variable)? By counting the times the participants flirt with another

How would you be sure you have a representative sample and that the groups would be even?

By making sure that the chosen participants are completely random and that there is a good mix between drinkers and non-drinkers

What does the Experimental Group do?

Take alcohol at increasing amounts

What does the Control Group do?

Not take any alcohol

#### Part B. Research Design

What is a potential confounding variable?

Actual definition: other variables that also have an effect on your dependent variable.

One in experiment: other drugs the participants might have taken.

How could he counterbalance the confounding variable?

Ensure all participants take no other cognitive affecting drugs

What might an experimenter effect be for this experiment?

That the drunker a person is the more prone they are to say stupid things and willing to flirt and might be more willing to count normal banter with another person as a “flirt”

How could Smithson correct for this (include the term from the text for this)?

**Experimental Control:** By coming up with a list of words or cues that are associated with flirting and only increment the number of times flirted if they use any of those words or cues.

Could a placebo be in play during this experiment? How could Smithson correct a potential placebo effect?

Yes, if the students were aware that they are being tested they might stop themselves from flirting even if drunk, but this could be corrected if they weren't informed to begin with.

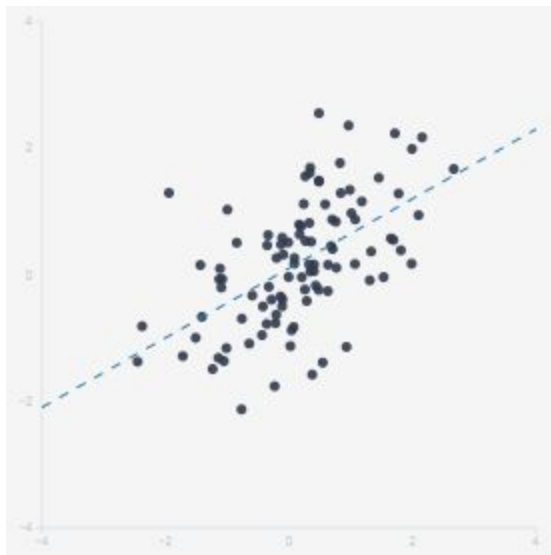
### Part C. Results

The means of the results show that those who drank alcohol averaged 30 flirtatious acts an hour and those who did not averaged 12.

The statistics show this to be Statistically Significant...what does that mean?

It means that alcohol has a significant effect on the number of flirtatious acts per hour

Draw a bar graph that represents these results.



What two ethical considerations did Smithson not take into account? Failure to debrief the participants, and not allowing them to withdraw from the experiment. (??? this question is already answered)