

He can best avoid a snare who knows how to set one. -- Publilius Syrus

You should be able to:

- 1) Identify the independent and dependent variables.
- 2) Identify all confounding variables and explain why they are confounded.
- 3) Identify any problems with the research that you feel will prevent the experimenter from being able to clearly draw the conclusion that the independent variable(s) resulted in the observed outcomes (note: this requires that you frame your criticism as in: "The results of this study could be due to X, rather than due to Y, as the author(s) concluded, because...").
- 4) Suggest a method to eliminate or avoid the confounding and/or other problems so that the researcher could still answer the questions raised by the original proposal.

DUE: One week from today.

1. Dr. Susan Rocksmasher wondered whether the gender of an examiner influenced the responses of male subjects on the Attitudes Toward Women (ATW) scale. (The ATW measures whether an individual has traditional or nontraditional attitudes toward women's roles.) She asked Dr. Wally Flowerpetal to administer half of the questionnaires so that she could compare the ATW scores for males tested by a male versus a female examiner. Dr. Rocksmasher found that her respondents had much more "liberal" ATW scores than Dr. Flowerpetal's respondents. She concluded that men "act" more liberal in order to gain approval from women, whereas they reveal their true "macho" selves to other men.
2. It was an exciting day for Mitzy Gogetum! She was finally ready to collect some data to find out if her new motivation video was as effective as she believed it to be! She only had one day to test her subjects, and Sunday was the day! Mitzy had announced her study when she placed an advertisement on the campus bulletin board. It read, "*Call for volunteers to participate in a study about motivation! Please call now as space is limited to the first 100 people!*" It had Mitzy's email and phone number on it and because she had no way of knowing or controlling which random people might end up calling her, she decided it would be easiest to assign the first 50 people who contacted to her experimental group (those who watched her 20-minute motivation video) and the next 50 people were assigned to the control group (these people watched a 20-minute long neutral video). After each group finished watching the video, they were given a motivation test. Mitzy was very pleased to find that people who watched her motivation video scored significantly higher in motivation than the control group!
3. Dr. Hugh Mungus wanted to determine whether the new drug *Giganticol*TM affected sexual prowess differently for men and women. Thirty male and thirty female college students were brought to the auditorium to participate in this study. Each was given an injection of the drug and then asked to rate their sexual prowess on a 10-point scale. To save time, Dr. Mungus had people raise their hands when he called each Likert value, and he simply counted the number of hands raised for each number (1-10). Upon reviewing the findings, it was discovered that men scored much higher on the measure than females. Dr. Mungus concluded that *Giganticol*TM reduces sexual prowess among females, but increases sexual prowess among males.
4. It was a dark and stormy night. Gunther was working late in the lab adding the finishing touches to his research project about the effects of staring at people to make them give up their tables faster at Olive Garden restaurants. He had collected his data over the course of three years (this was before COVID hit). There were two conditions: (1) Staring and (2) No-staring in which Gunther would arrive at the Olive Garden each evening at 6:00pm when the restaurant was very busy and there was always at least a 45-minute wait. Then he would always "target" the same table of 6 and either stare at them continuously or ignore that table. The dependent variable was how long the table had guests timed in minutes/seconds as they were being seated

until the last person left the table. He did this for three dining groups each evening. To make it fair three days a week were used for each condition; condition 1 (staring) occurred on Mondays, Tuesdays, and Wednesdays, then data for condition 2 (no-staring) were collected on Fridays, Saturdays, and Sundays. As he expected, Gunther found that staring did indeed reduce the amount of time diners stayed at the table.

- 5 Edward Christoff Washington Smithingham the Third wanted to test the hypothesis that people will be more likely to conserve resources if they perceive those resources to be important compared with perceiving a resource to be unimportant. He randomly assigned 100 participants to enjoy a lunch buffet of beef wellington, lobster bisque, seared scallops, truffle risotto, foie gras, duck à l'orange, and rice crispy treats. Half of the participants ate at 11:30am on Tuesday and the remainder ate at 11:30am on Thursday. At the end of the buffet line for both groups there was a stack of napkins. The napkins on Tuesday were simple white napkins placed on top of a Dollar Store bag (unimportant) whereas the napkins used for Thursday were bright blue and the participants were told this was because the napkins were donated by Prince William of Orange-Nassau (important). These napkins were stacked on top of a small purple pedestal. The dependent variable was the number of napkins that participants took for their meals.
- 6 To put to rest the ages-old question of whether laughter truly is the best medicine, Dr. Klunko Bimbim LaSqueak decided to put it to the test. Dr. LaSqueak identified 80 children (ages 8 to 15) with leukemia. Children were randomly assigned to one of two conditions. In the first (experimental) condition, 40 children underwent all of their chemotherapy treatments in the presence of 5 professional laughers (e.g., hired from *Chuckle Buddies*) who sat nearby and took turns laughing hysterically in order to maintain a constant laughter environment during the entirety of each treatment. In the second (control) condition, the remaining 40 children underwent their chemotherapy sessions in the presence of the same 5 hired laughers who this time sat quietly nearby and never engaged in laughter. After five years (a standard measure of survival rate) it was found that about 8% of the children had died from the experimental group while 17% had died from the control group. Dr. LaSqueak concluded that there are significant health benefits to laughter and encouraged parents and professionals to always try to make their sick children laugh.