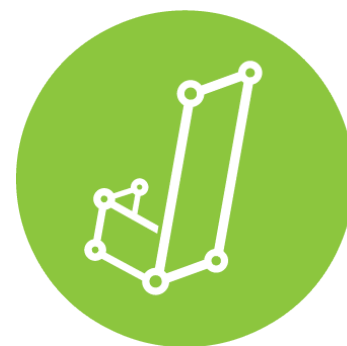


PSYC 2022 N: JASP Group Assignment

Due Online: Monday, April 6, 2020



Purpose

This assignment is meant to:

1. To test your ability to judge which statistical tests are most appropriate for different research designs.
2. To expose you to real-world data sets and how to handle them.
3. To teach you how to accomplish statistical tests using accessible software packages.
4. To practice your APA reporting skills.

Before you begin

JASP is a free, open-source, cross-platform package for statistical analysis developed by graduate students at the University of Amsterdam. Compared to other programs such as SAS, SPSS, and R, JASP has an intuitive interface that was designed with the user in mind. For this assignment you will need to download JASP from: <https://jasp-stats.org/download/>

Instructions

Below is a list of research problems. For every problem you are instructed to:

1. Choose the right statistical test and justify it
2. Complete the analysis in JASP and paste relevant output
3. Write up the results of the test in APA format and include:
 - a. Answer the research question
 - b. APA statement
 - c. Descriptive statistics

Additionally, you will submit a self and peer evaluation found **ONLINE**.

A guide is available on the moodle course page to help you walk through all of the analyses on JASP. You will submit your assignment as **ONE COMPLETE PDF** document online through Moodle by **MONDAY APRIL 6, 11:59 PM**. The correct completion of all the questions will be worth **70% of the mark** and the peer evaluation will be worth **30% of the mark**.

Research Problems

1. **Album Sales:** A study was done to see whether getting radio airtime and spending money on advertisements accurately predicts the number of album copies sold. A random sample of 200 artists' albums were tracked on the number of times their songs play on the central radio station, how much money (in thousands) they spent on advertisements, as well as the number (in thousands) of album copies were sold.
2. **Cholesterol:** A study tested whether cholesterol was reduced after using a certain brand of margarine as part of a low fat, low cholesterol diet. A random sample of 10 people consumed the margarine every day and measurements of their cholesterol was taken at three time points (before, after 4 weeks, after 8 weeks).
3. **College Success:** A study by an American university examined whether scores on the SAT accurately predict students' GPA score three semesters into their first year. A random sample of 224 students agreed to release their information for the purpose of the study.
4. **Directed Reading:** A study tested whether giving students directed reading activities would result in higher reading performance. A random sample of 44 students are randomly assigned to one of two activities (Directed Reading or Control). After undergoing the activities, each student's reading performance was measured.
5. **Dog Show:** A study at a dog show examined whether or not there was a relationship between how the judges ranked dogs on their form compared to how they ranked them on their groom. A random sample of 15 dogs were ranked from 1 = best form to 15 = worst form and also ranked from 1 = most groomed to 15 = least groomed.
6. **Goals:** Most Americans report that one of their New Year's resolution goal is to lose 25 pounds in 3 months. A study was done to see if Canadians on average report lower weight loss resolutions than Americans. A random sample of 80 Canadians were asked to report how many pounds they set as their New Year's weight loss resolutions.

7. **Healthy Habits:** A study was done to examine the association between physical activity and fruit consumption among midwestern college students. A random sample of 1184 students who participated in the survey reported how physically active they were (low, moderate, vigorous) and how much fruit they consume (low, medium, high).
8. **Invisibility Cloak:** A study was done to evaluate whether or not students at Hogwarts would act more mischievous if they had an invisibility cloak. A random sample of 24 students were either given an invisibility cloak or a normal one. After one month, their teachers ranked the students on a scale from 1 = innocent to 7 = up to no good.
9. **Lunar Aggression:** A study tested whether prisoners' level of aggression is higher on nights with a full moon compared to other nights of the year. A random sample of 15 prisoners were tracked for the average number of disruptive incidents on nights with a full moon as well as the average number of disruptive incidents other nights of the year.
10. **Pain Thresholds:** A study tested the differences in pain thresholds between people with different hair colour. A random sample of 20 females were grouped by their hair colour (Blond, Light Brown, Dark Brown, Red) and tested on their pain sensitivity.
11. **Perfectionism:** Dr. Flett was interested to see if a negative relationship existed between people's level of perfectionism and self-compassion. A random sample of 102 people completed a perfectionism questionnaire and also a self-compassion questionnaire.
12. **Raptors:** At the end of 2018, the Toronto Raptors team seemed to have the best record in franchise history, potentially due to their size and strength. A study tested if a random sample of 16 Raptors players are heavier than the average NBA player since 1947 who's average weight is 208.91 pounds with a standard deviation of 26.27.

13. **Siblings:** A study was done to see if in a marathon, older siblings are more inclined to run with their younger siblings and finish together rather than distance themselves and actually compete. A random sample of 10 pairs of siblings were tracked to see what rank they finished in the race.

14. **Sunshine:** In Ontario, anyone who works in the public sector and makes more than \$100,000 appears with their name, salary, and job title on the Sunshine List.
<https://www.sunshinelist.ca> A study was done comparing the different categories of job titles and their salary rank. A random sample of 125 York University employees on the sunshine list were ranked in order of salary from lowest to highest and categorized as either a Professor, Lecturer, Instructor, Librarian, or Administrator.

15. **Superheroes:** A study was done to see the most popular superhero among middle school children in Toronto. A random sample of 76 children were asked to report their most favourable superhero between Batman, Captain America, Spiderman, Superman.

16. **Tooth Growth:** A study examined if the length of odontoblasts cells (cells responsible for tooth growth) are affected by the dose of vitamin C or the method of administering it or both. A random sample of 60 guinea pigs was given one of three doses of vitamin C in micrograms (500 µg, 1000 µg, 2000 µg) through one of two methods (orange juice - OJ, ascorbic acid - VC). The day after administering the vitamin C, the length of odontoblasts cells was measured for each guinea pig.

17. **Video:** A study was done to evaluate the use of best method for informing the public about a certain medical condition. There were three videos (New general video, New medical profession video, the Old video C) and a demonstration using props D. After watching them, random sample of 20 participants were asked to rank the four different methods used from 1 = most favourite to 4 = least favourite.