

KIN 610 | JASP Assignment 1

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Learning objectives

1. Differentiate between independent and dependent variables
2. Assign the correct data level to variables (nominal, ordinal, and scale)
3. Create and compute new variables in JASP
4. Select and unselect cases in JASP
5. Create and interpret histograms, boxplots, and Q-Q Plots

Dataset: Link

1. Open the data set in JASP (Open > Computer)
2. Note the data set has 3 variables
3. Set the variables to their appropriate scale (e.g., Nominal, Ordinal, Scale)

Questions ¹

Question 1: Variables

What is(are) the independent variable(s) for this data set?

What is(are) the dependent variable(s) for this data set?

*Question 2: Create a new **scale** variable and name it **log10-heart-rate**; then compute the log10 of **Heart Rate** into this variable. Then, calculate the min, max, and mean for this variable.*

*Question 3: Select cases so that **only** Female runners are selected for the current analysis. Then, using the variable **Heart Rate**, create a histogram for the selected cases. Without considering the other sources of normality (e.g., zkurt, zskew, q-q plots, Shapiro-Wilk test), does the distribution of scores appear to be approximating or deviating from normality?*

Note: If turning this assignment for grade, **copy and paste the histogram below** and **provide your answers** below the graph.

¹Each question is worth 2 points

Question 4: Before proceeding, unselect cases so that both groups (e.g., runners and control) can be considered for this analysis. Using the variable you created (log10-heart-rate), create boxplots for both groups so that they appear side-by-side on the same graph. Now, inspect both boxplots and list potential outliers for each group (control and runners).

Note: If turning this assignment for grade, **copy and paste the boxplot graph below and provide your answers** below the graph.

Question 5: Before proceeding, unselect **all** previously selected cases. Using the variable Heart Rate, create two Q-Q Plots (one for males and one for females). Without considering the other sources of normality (e.g., zkurt, zskew, histogram, Shapiro-Wilk test), does the distribution of scores appear to be approximating or deviating from normality for males? How about females?

Note: If turning this assignment for grade, **copy and paste the Q-Q Plots below and provide your answers** below the graphs.