Lab 2

Measures of Central Tendency and Measures of Variability Assignment

1 Objective

Objective: To assess students' understanding of measures of central tendency and measures of variability and their ability to use jamovi for data analysis.

2 Instructions

- Open Jamovi and create a new data set with the following variables: Gender and Reaction Time (ms).
- Enter the provided data set into the Jamovi data spreasheet.
- Click on "Descriptives" under the "Exploration" tab in the top menu.
- Select the "Reaction Time (ms)" variable and drag it into the "Variables" box.
- Select the "Gender" variable and drag it into the "Split by" box.
- Under "Statistics" and "Plots", select all checked items depicted in Figure 1.
- Review the generated table and graphs to ensure that the output is accurate and complete.
- Export the output as PDF and choose the desired destination to save the PDF file.
- Name the file with your first initial and last name and submit the file via Canvas (Lab 2 - Part 1).

- Complete Part 2 on Canvas - 2-question quiz

> **Warning**
>
> Remember that this assignment must be completed individually, and that plagiarism is prohibited. Review the plagiarism policy posted on the CSUN website before submitting your assignment. Note: The generated PDF file should contain the Descriptives Table (variables across columns) and the relevant graphs. Be sure to review the file before submitting it to ensure it contains all the required information.

3 Grading rubric

Total points available: 90

Component	Points
File submission (Part 1) containing the following: • the Descriptives Table (Variables across columns) • bar blot comparing gender • single graph with both histograms - w/ density curves (males, females) • single graph with both boxplots (males, females) • single graph with both QQ Plots (males, females)	50
20-question quiz	40

4 Data

Copy the data below and paste it to jamovi, or download it as `.csv`.

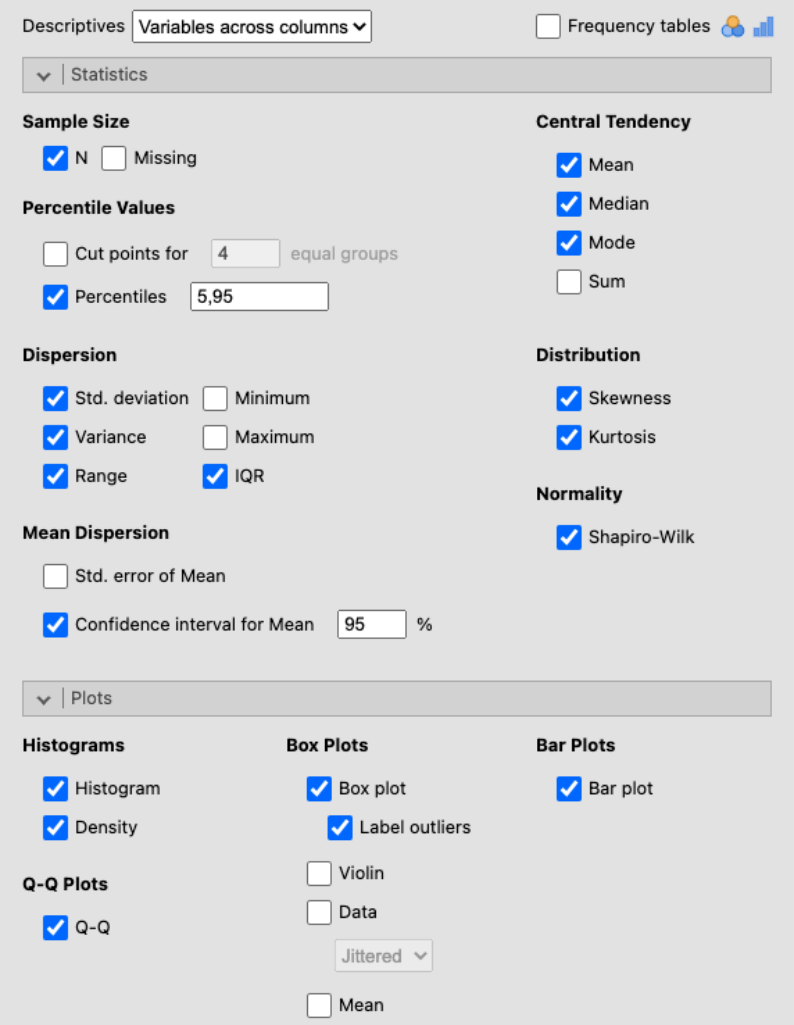

Figure 1: Screenshot jamovi

Gender	Reaction Time (ms)
Male	215
Male	203
Male	197
Male	208
Male	222
Male	212
Male	194
Male	219
Male	201
Male	214
Female	185
Female	172
Female	190
Female	165
Female	150
Female	180
Female	195
Female	170
Female	210
Female	148