

7.7 Unit 2 Project Report

Name _____

Group Member _____

Group Member _____

Group Member _____

Your report should be typewritten and double-spaced. Use this page as a cover sheet. Each individual must submit his/her own project report.

I will grade your report using the Intellectual Standards on the back of this page.

The report should include the following parts.

Introduction: Write a paragraph to introduce your reader to the topic you have chosen. State the research question (from Module 7.7). Describe the source of the data. List and describe the variables you used in the analysis and explain why your group chose these variables.

Exploratory Data Analysis: Analyze the data using all relevant and appropriate numerical summaries and graphs (with clear labels). Your explanations should reflect the use of Unit 2 concepts:

- Dotplots, histograms, and boxplots

- Shape of the distribution (left-skewed, right-skewed, bell-shaped, uniform, other)

- Appropriate measure of center (mean, median)

- Appropriate measure of spread (range, IQR, standard deviation)

- Outliers

Summarize in words what your numerical summaries and graphs are telling you.

Conclusion: Answer the question based on your analysis of the data.

Data sources:

Movies.txt:

This data set describes 75 movies listed in the top 100 USA box office sales of all time. Data was taken from IMDb.com in Spring 2014.

Body Temperature and Heart Rate.txt:

Allen L. Shoemaker, "What's Normal? Temperature, Gender, and Heart Rate," Journal of Statistics Education, 1996 (jse/v4n2/datasets.shoemaker)

Cereals.txt

"Eyes in the Aisles" Aviva Musicus, Aner Tal, Brian Wansink; Environment and Behavior Vol 47, Issue 7, pp. 715 - 733.

Body Measurements.txt:

Journal of Statistics Education, V11N2: Heinz

(<http://users.stat.umn.edu/~sandy/courses/8053/Data/Bodymeasurements/datasets.heinz.html>)

Intellectual Standards

Clarity forces the thinking to be explained well so that it is easy to understand. When thinking is easy to follow, it has Clarity.

Accuracy makes sure that all information is correct and free from error. If the thinking is reliable, then it has Accuracy.

Precision goes one step further than Accuracy. It demands that the words and data used are exact. If no more details could be added, then it has Precision.

Relevance means that everything included is important, that each part makes a difference. If something is focused on what needs to be said, there is Relevance.

Logical means that the thinking is consistent and the conclusions follow from the evidence. When something makes sense step-by-step, then it is Logical.

Significance compels us to include the most important ideas. We don't want to leave out crucial facts that would help to make a point. When everything that is essential is included, then we find Significance.

Multiple Perspectives include graphs, numerical summaries, verbal (word) descriptions, and calculations. Use all perspectives that are relevant.