



PROJECT

Analyze Survey Results

A part of the Data Foundations Program

PROJECT REVIEW

CODE REVIEW

NOTES

SHARE YOUR ACCOMPLISHMENT!

Meets Specifications

Congratulations 🎉 You passed this Project. I hope this was a great experience for you.

Study Material

- A great [link](#) to organize your approach to a Data Analysis.
- Best practice for [Data Analysis](#).
- <https://explorable.com/statistical-correlation>

Exploration Phase

The project clearly states four or more questions, then addresses those questions in the rest of the analysis. The solutions to the questions should range in being found from a single column to being found using multiple columns.

Slide include and clearly states four questions. Really appreciate the details included by you.

SUGGESTIONS

- To make report more influencing, you should highlight words that you want to emphasise on.

Student uses means, medians, and modes to generate insights.

Great work !! All insights are very informative and correct, appreciate the place where you have mentioned the outlier handling and disparity in dataset. Keep it up.

Student uses standard deviation and range to generate insights.

REQUIRED

Calculate mean, median or mode and draw some conclusion based on that. Project is about analysing dataset and you should consider finding out interesting insight from them.

Study Material

- <https://statistics.laerd.com/statistical-guides/measures-of-spread-standard-deviation.php>

Student uses at least two different plots to explore the data. These plots may include histograms, box-plots, scatterplots, and bar charts to explore data and gain insights.

I really appreciate the choice of plots used by you.

SUGGESTIONS

- Please have a look on pareto charts as opposed to bar charts as a way to more quickly see the professional fields.

Few links that will give you idea about the famous plot that changed the way people to data analysis, (try to use them too)

- <https://www.r-bloggers.com/how-to-analyze-data-seven-modern-remakes-of-the-most-famous-graphs-ever-made/>
- <http://www.ifweassume.com/2012/07/plots-that-changed-world.html>

Communication Phase

The results of the analysis are presented such that any limitations are clear. The analysis does not state or imply that one change causes another based solely on a correlation.

The results do not imply facts about a larger group of individuals based on descriptive values. Language is only applied to the specific data provided. Unless a correct analysis beyond the course material is conducted that allows for inference.

The way that in which you have stated about your results and thinking is amazing. Keep the good work up.

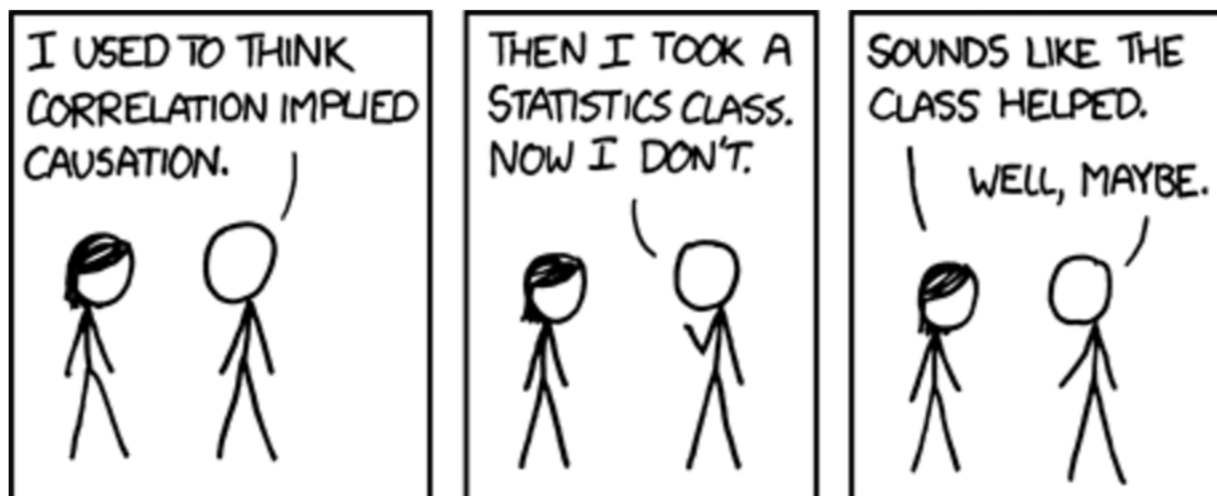
Even STRONG Correlation Still Does Not Imply Causation

But even if your data have a correlation coefficient of +1 or -1, it is important to note that correlation still does not imply causality. For instance, a scatterplot of popsicle sales and skateboard accidents in a neighborhood may look like a straight line and give you a correlation coefficient of 0.9999...but buying popsicles clearly doesn't cause skateboard accidents. However, more people ride skateboards and more people buy popsicles in hot weather, which is the reason these two factors are correlated.

It is also important to note that the correlation coefficient only measures linear relationships. A meaningful nonlinear relationship may exist even if the correlation coefficient is 0.

Only properly controlled experiments let you to determine whether a relationship is causal, and as that recent LinkedIn conversation has indicated, the "requirements" for determining causality can vary greatly depending on what you're studying.

So, in the end, what can we say about the relationship between correlation and causation? This comic from xkcd.com, also referenced in the recent LinkedIn conversation, sums it up nicely:



The analysis associated with answering a particular question uses the appropriate variables, summary statistics, and plots that could provide an answer.

Good Work!! Every thing is perfect.

Reasoning is provided for each analysis decision, plot, and statistical summary.

Good Work!! Every thing is perfect.

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