Homework # 5

Measures of Association II

This assignment covers the contents of the *Measures of Association II* lab (March 23/24, POLI 001/002 respectively). You will use the `QoG` data sets we have been using so far to select variables of your choice for this assignment. The `QoG` codebook can be found online and on Canvas.

Submit an R script with code that produces the tasks requested in this assignment. I will evaluate your submission by running your code. For written/explanatory answers just add comments to your code in the corresponding section. Please be as concise as possible in your written answers, if any. As long as you answer what you are supposed to, I will not grade based on the length of your explanation.

You can work in groups, and consult class materials and code found online; but please write your own code and submit one assignment per student.

> **Due**: End of day on Monday, March 27, 2023
> **How**: Canvas assignment submission link
> **Files**: hw05-Lastname.R
> **Max grade**: 10 points

In class, we explored the suggested association online between exposure to isolation created by the COVID-19 pandemic and levels of happiness and violence using various measures. In this assignment, you will have to define a relationship/association that you want to explore and do so using the statistic that you consider most appropriate.

1. [4 pts] Establish a theoretical relationship you want to test. What two variables do you want to test if they are associated? Using the `QoG` codebook, identify some variables that can serve as proxies of your theoretical variables of interest. Import either the cross-sectional or time series `QoG` data and select the variables you are interested in.
2. [6 pts] Measure the association (or effect size) between your two variables of interest using one of the measures seen in class (cohen's d, ANOVA, F-statistic, eta squared, odds ratio, chi-squared, Pearson correlation). Use the measure that you consider most appropriate given what you want to evaluate. Explain your choice. Explain your results, are your variables associated? how?