

SDS 4135 - Tips for Good Reports

Clarity

The number one thing that I look for in reports is clarity of presentation. I should be able to read your report and understand exactly what you did, without having to look into your code. To improve clarity, it may sometimes be useful to include a few lines of code, but code should be kept to an absolute minimum in your reports.

A statistical analysis involves the specification of a statistical model. When specifying the statistical models that you use, strive to use clear mathematical notation. Your notation should allow the referencing of individual observations and variables. Often subscripts are a good way to do this, but not the only way. Each symbol should be defined, and distributions of random terms should be fully specified.

Figures and Tables

A good presentation of your analysis and results will involve the production of visualizations and figures. Figures should be mostly self-contained, in the sense that someone familiar with the data should be able to look at your figure and understand what it's showing, without referencing the text of your report. Captions are helpful.

If your figure displays information from a small number of numbers, sometimes a table is a better way to display the information. As with figures, tables should be reasonably self-contained. Tables with many rows and columns are sometimes appropriate, but usually are too overwhelming and would be better displayed as a figure.

Budget time for writing

You will likely spend more time doing the analysis than writing the report. However, you should budget sufficient time for writing and revising the report. Aim to have a good draft done the day before it is due, to allow time for revising it. You shouldn't be turning in a first draft.

AI

I don't mind if you use AI to help with your analysis or your report. Using it for writing is a bit of a gamble because it might plagiarize text, which would get you in trouble. You are responsible for ensuring that your work is not plagiarized. A safe way to do that is to write it yourself.

I encourage you to use AI to help think through your analysis, and even to help write code. Again, there is a gamble here because I am going to ask you questions in your presentation, and if it's clear that you don't understand the analysis that you did, you will get docked in your grade.

AI can make you smarter or dumber. If you allow it to think for you, you will get dumber. If you use it to help explain things you don't understand and as a sounding board for your own ideas, you will get smarter.