

Group assignment: Is High-Dimensional Analysis Worth it?

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Abstract

You can write the abstract at the end. Do it approximately like this and you have a nice flow: one sentence about data context. One sentence about research problem. One sentence about research question. One sentence about methods compared. One sentence about results. One sentence about conclusion.

1 Introduction

i Note

Max 700 words

Provide a description of your data and relevant context on the research problem it might have been designed to solve in 2 to 3 paragraphs. Maybe referring to a figure in a manner such as Figure 1.

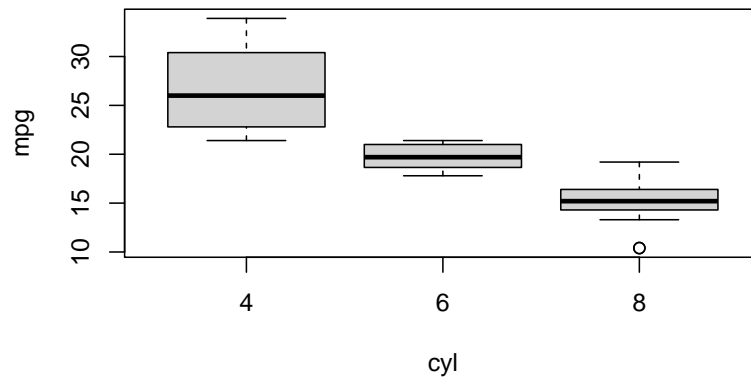


Figure 1: A boxplot comparing the mpg of cars for different numbers of cylinders.

Write max 2 paragraphs describing the research problem and leading to the methodological research question. The question should revolve around comparing high-dimensional vs not high-dimensional methods.

2 Methods

i Note

500-600 words

Description of methods you use in maximum 3 paragraphs. You might want to refer to literature which you can find in the file `bibliography.bib` e.g., Hastie, Tibshirani, and Wainwright (2015) or James et al. (2013). Use bibtex notation in the `.bib` file.

Also describe your comparison or validation strategy in 1 or 2 paragraphs. Answer the question: how are you going to compare your chosen methods against each other? How are you going to conclude which is better for this dataset / research purpose?

3 Results

i Note

Max 500 words

Here, provide a description of **relevant** results in 2 to 3 paragraphs. You are invited to use images / plots to help communicate your results, but keep this section legible and stick to the main points! In your results section, you should refrain from giving too much discussion / explanation; be quite factual.

4 Conclusion

i Note

Max 700 words

Start with a short summary of what you have done in 1 paragraph (“in this report, we have...”).

Then, write your conclusion in which you answer your research question in 1 paragraph (“For this dataset, we have found that the high-dimensional analysis improved / did not improve over ...”)

Then, contextualize your conclusion by providing some discussion additional interpretation in approx. 3 paragraphs. Feel free to refer to additional literature if you like. Suggestions for future research might be nice to add.

5 References

- Hastie, Trevor, Robert Tibshirani, and Martin Wainwright. 2015. “Statistical Learning with Sparsity.” *Monographs on Statistics and Applied Probability* 143 (143): 8.
- James, Gareth, Daniela Witten, Trevor Hastie, Robert Tibshirani, et al. 2013. *An Introduction to Statistical Learning*. Vol. 112. Springer.