S1
Project work

Q1 · Yes / No

Can you open the pdf/html-file and it's no essentially empty? If the submission is empty or no-effort nonsense contact the course staff.

Response

No

Yes

Q2 · Scale

Is there an introduction?

Response

○ There is no clear introduction

○ The introduction touches on the main topic

○ The introduction states the main topic and provides an overview of the report

○ The introduction is inviting, presents an overview of the report. Information is relevant and presented in a logical order

Q3 · Text

What are your suggestions on how to improve the introduction?

Response

Q4 · Scale

Is there a description of the data and the analysis problem?

Response

○ There is no clear description

○ Description is only provided for data/analysis but not both

○ A brief description is given for both

○ Description is relevant, detailed, and provides convincing motivation for the project

Q5 · Text

Did you get a sense of what is the data and the analysis problem when they were first introduced? Where and how might the author make the model description more clear?

Response

Q6 · Scale

Are there descriptions of at least two models?

Response

○ No, practically non-existing, or nonsense

○ Only one model described

○ At least two models described

○ All (2+) model descriptions are clearly presented and are reasonable choices for the reported analysis problem

Q7 · Text

Did you get a sense of what the models are? Where and how might the author(s) make the model description more clear?

Response

Q8 · Scale

Are there descriptions and justifications of the prior choices?

Response

○ No priors, non-existing description, or nonsense

○ Priors listed and described

○ Priors are listed and described. The choice of priors is justified and clearly explained

○ Prior choices show additional background research into subject matter, are justified, and clearly explained

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Q9 · Text

Did you get a sense of what the priors are? Where and how might the author(s) make the prior description and justification more clear?

Response

Q10 · Scale

Is Stan, rstanarm, or brms code included? The main report can also show parts of a long code, and the complete model code can be in the appendix if it's mentioned in the main text.

Response

○ No code or nonsense code

○ Stan code included, but it's really messy

○ Stan code included with easy to read layout (even if it would be complex to understand)

○ Stan code is clean and obviously optimized for readability

Q11 · Yes / No

Is there code to show Stan model is run so that it's easy to see what options were used?

Response

No, it's practically non-existing, or it's nonsense

Yes

Q12 · Scale

Is Rhat convergence diagnostics and interpretation included?

Response

○ No

○ Yes, but not for all models

○ Yes, they are provided for all models but no discussion on what can be concluded

○ Yes, they are provided for all models, with discussion about what can be concluded

Q13 · Scale

Are HMC specific convergence diagnostics (divergences, tree depth) with interpretation of the results included?

Response

○ No

○ Yes, but not for all models

○ Yes, they are shown for all models but no discussion on what can be concluded

○ Yes, they are shown for all models, with discussion about what can be concluded

Q14 · Scale

Are effective sample size diagnostic (usually denoted with n_eff or ESS) and an interpretation of the results included?

Response

○ No

○ Yes, but not for all models

○ Yes, they are included for all models but no discussion what can be concluded from the shown values

○ Yes, they are included for all models, with discussion what can be concluded from the shown values

Q15 · Scale

Is there posterior predictive checking and interpretation of the results?

> **Response**
>
> ○ No
>
> ○ Yes, but not for all models
>
> ○ Yes for all models but no discussion on what can be concluded from the shown checks
>
> ○ Yes for all models, with discussion about what can be concluded from the shown checks

Q16 · Scale

Is there model comparison and interpretation of the results?

> **Response**
>
> ○ No
>
> ○ Yes, but not for all models
>
> ○ Yes, but no discussion on what can be concluded from the comparison
>
> ○ Yes, with discussion about what can be concluded from the comparison

Q17 · Scale · Optional question

[Bonus] Is there predictive performance assessment (e.g. classification accuracy) and evaluation of practical usefulness of the accuracy?

(Note: This is an optional question. Please <u>leave blank unless the response is true</u>. If you accidentally selected an incorrect response, "No" is provided.)

> **Response**
>
> ○ No
>
> ○ Yes, but no discussion of the results/ Yes, but it isn't applicable to the analysis problem
>
> ○ Yes, but discussions of the results are unclear
>
> ○ Yes and the discussion cleary shows why this assessment is important for the model's usefulness

Q18 · Scale

Is there prior sensitivity analysis? That is, is there any alternative prior tested and reported and whether estimates of quantities of interest changed?

Response

○ No

○ Yes, but not for all models

○ Yes, but no discussion on what can be concluded from the sensitivity analysis

○ Yes, with discussion about what can be concluded from the sensitivity analysis

Q19 · Scale

Is there a discussion of problems and potential improvements? The analysis does not need to be perfect. It is ok to have bad models, bad convergence etc, as long as they are acknowledged and discussed.

Response

○ No, practically non-existing, or nonsense

○ Some

○ Clear discussion

○ Clear discussion with relevant, logical, and well-motivated reasons given analysis problem

Q20 · Scale

Is there a conclusion describing what was learned from the data analysis?

Response

○ No, practically non-existing, or nonsense

○ Conclusion is included

○ Conclusion is clear

○ Conclusion is clear and justified given analysis problem

Q21 · Text

Describe in your own words what is the main conclusion of the data analysis in this report?

Response

Q22 · Yes / No

Is there a section of self-reflection about what the group learned while making the project?

Response

There is no self-reflection section or it's practically non-existing

There is a self-reflection section

Q23 · Scale

Accuracy of use of statistical terms

Response

○ There are numerous errors in use statistical terms

○ There are some errors or confusing use of statistical terms

○ Statistical terms are used accurately (as far as I the reviewer know)

Q24 · Yes / No

Were the numbers reported with reasonable number of digits? (Regardless of which specific convention was chosen)

Response

No, numbers were reported with unnecessary number of digits

Yes, some form of digit/precision control was done

Q25 · Yes / No

Was there excessive code output (i.e. not central to the analysis being performed) in the report? Putting code output to appendix is acceptable.

Response

Yes, majority of code output was irrelevant to the analysis and should have been controlled

No, code outputs were generally relevant/necessary to the specific analysis being done

Q26 · Yes / No

Was the main body of the report within the 20 page limit? (Not including appendix)

Response

No, report was over 20 pages

Yes, report was exactly or under 20 pages

Q27 · Scale

The structure and organization of the report

Response

○ The report lacks a clear data analysis story

○ The report attempts to tell a coherent data analysis story but lacks some focus and clarity

○ The report presents a clear cohesive data analysis story

○ The report presents a clear cohesive data analysis story, which is accessible to any average student on the course

Q28 · Text

Overall, what did you think of the structure and organization of the report? Name at least one way the author(s) could improve structure and organization.

Response

Q29 · Text

Choose something you like about the report and explain why you like it.

Response

Q30 · Text

For the oral presentation of this work, what improvements or advice would you give to the author(s) that could feasibly be done in time for the presentation?

Response

Q31 · Text

If you were to go back and redo your own report after reading this submission, what would you change?

Response

Q32 · Text

If the author(s) were to complete this project work again, what could they change, to make it better?

Response