

Review ISZ_8

Reviewers

Maciej Górnik	402325	Points:	25/27
Karolina Woźniak	400761	Percent:	93%

Problem formulation [5 | 5 pts]:

▪ is the problem clearly stated **[1 pt]**
Problem stated clearly [1pt]

▪ what is the point of creating model, are potential use cases defined **[1 pt]**
Point and use cases defined [1pt]

▪ where do data comes from, what does it contain **[1 pt]**
Sources and content described [1pt]

▪ DAG has been drawn **[1 pt]**
Yes [1 pt]

▪ confoundings (pipe, fork, collider) were described **[1 pt]**
Yes [1 pt]

Data preprocessing [2 | 2 pts]:

▪ is preprocessing step clearly described **[1 pt]**
Data preprocessing described clearly. [1 pt]

▪ reasoning and types of actions taken on the dataset have been described **[1 pt]**
Reasoning and types of actions explained corectly [1 pt]

Model [3.5 | 4 pts]

▪ are two different models specified **[1 pt]**

Models described and specified. [1 pt]

▪ are difference between two models explained **[1 pt]**

Differences explained. Used different distributions.

- is the difference in the models justified (e.g. does adding additional parameter makes sense?) **[0.5 pt]**

Difference explained only in one sentence. Could have been described in more detail [0.5 pt]

- are models sufficiently described (what are formulas, what are parameters, what data are required) **[1 pt]**

Yes [1 pt]

Priors [3.5 | 4 pts]

- Is it explained why particular priors for parameters were selected **[1 pt]**

Yes [1 pt]

- Have prior predictive checks been done for parameters (are parameters simulated from priors make sense) **[1 pt]**

Parameters simulated from priors make sense [1 pt]

- Have prior predictive checks been done for measurements (are measurements simulated from priors make sense) **[1 pt]**

Measurements simulated look correct [1 pt]

- How prior parameters were selected **[0.5 pt]**

Prior parameters selected based on dataset not based on knowledge of the subject. [0.5 pt]

Posterior analysis (model 1) [3.5 | 4 pts]

- were there any issues with the sampling? if there were what kind of ideas for mitigation were used **[1 pt]**

No issues with sampling and no mitigations. [1 pt]

- are the samples from posterior predictive distribution analyzed **[1 pt]**

Yes [1 pt]

- are the data consistent with posterior predictive samples and is it sufficiently commented (if they are not then is the justification provided) **[1 pt]**

Yes [1 pt]

- have parameter marginal distributions been analyzed (histograms of individual parameters plus summaries, are they diffuse or concentrated, what can we say about values) **[0.5 pt]**

No histograms of alpha and beta [0.5 pt]

Posterior analysis (model 2) [3.5 | 4 pts]

- were there any issues with the sampling? if there were what kind of ideas for mitigation were used **[1 pt]**

No issues with sampling and no mitigations. [1 pt]

- are the samples from posterior predictive distribution analyzed **[1 pt]**

Yes [1 pt]

- are the data consistent with posterior predictive samples and is it sufficiently commented (if they are not then is the justification provided) **[1 pt]**

Yes [1 pt]

- have parameter marginal distributions been analyzed (histograms of individual parameters plus summaries, are they diffuse or concentrated, what can we say about values) **[0.5 pt]**

Same as in Model 1 no individual parameters histograms. [0.5 pt]

Model comparison [4 | 4 pts]

- Have models been compared using information criteria **[1 pt]**

Yes [1 pt]

- Have result for WAIC been discussed (is there a clear winner, or is there an overlap, were there any warnings) **[1 pt]**

Yes. Second model turned out to be better. [1 pt]

- Have result for PSIS-LOO been discussed (is there a clear winner, or is there an overlap, were there any warnings) **[1 pt]**

Yes. Second model turned out to be better. [1 pt]

- Was the model comparison discussed? Do authors agree with information criteria? Why in your opinion one model better than another **[1 pt]**

Comparison discussed and explained clearly. [1 pt]