

# PSI CA Part II Suggested Content

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## Introduction

~~Introduce your key ideas, state your research question. Explain what it is you intend to do and how you intend to use regression/dimension reduction.~~

## Methodology

(You can include subsections if you want to)

Describe how you are going to handle ~~missing data~~, outliers, normality etc. Cite sources in support.

~~State the statistical significance level you will be using as a cut-off.~~

~~State conventions for assessing effects. Cite sources in support.~~

~~State how you will establish statistical evidence in advance of building any models/conducting dimension reduction.~~

~~State the multivariate technique(s) you intend to use and explain why.~~

State how you will assess fit and usefulness of any model/dimension reduction conducted and cite sources in support.

## The Dataset

~~Describe how the dataset was collected, how much data, what are the variables of interest – what statistical type are they, what are potential values (if relevant).~~

Address representativeness. If you don't have specific information try to extrapolate from relevant other statistics (e.g. EU stats, indexmundi)

Present your descriptive analysis for all the variables of interest as relevant to your proposed analysis.

## Results

Present your analysis step by step. You can and should use sub-sections.

**NOTE:** You need to include at least one nominal variable in one of your regression models for both option a and option b.

If doing Option (a):

- Baseline model
  - ~~State your hypothesis for baseline 1 (that concept x can be considered to be predicted by ....)~~
  - ~~Present relevant summary statistics for variables of interest (you can reuse results from part I but you may wish to change the way you present them.)~~
    - ~~If errors were identified in Part I then you need to correct these.~~
  - ~~If you are dealing with missing data, outliers, normality on a model by model basis discuss it here.~~

- ~~Establish your statistical evidence~~ (you can reuse results from part I but you may wish to change how you present it e.g. use a table or correlations or differences and a range of graphs in a single figure with a short paragraph discussing key findings and how these influence your analysis or a paragraph per relevant finding with supporting graphs in figures etc.)
- Present your findings for baseline
- Interpret your findings for baseline
- Illustrate your findings for baseline
- For the next model(s)
  - State your hypothesis for model
  - Present relevant additional summary statistics (you can resume results from part I but you may wish to change the way you present them)
  - If you are declining with missing data, outliers, normality on a model by model basis discuss it here.
  - Establish additional statistical evidence (you can reuse results from part I)
  - Present your findings for model
  - Interpret your findings for model

If doing Option (b)

- Dimension Reduction
  - State your hypothesis/justification for the dimension reduction
  - Present relevant summary statistics (you can reuse results from part I but you may wish to change the way you present them.)
    - If errors were identified in Part I then you need to correct these.
  - If you are dealing with missing data, outliers, normality on a model by model basis discuss it here.
  - Establish that your data meets requirements for dimension reduction technique used.
  - Report on the outcomes.
  - Report descriptive statistics for the factors/components extracted.
- Regression Model
  - State your hypothesis for the model (that concept x can be considered to be predicted by ....)
  - Present relevant summary statistics (you can reuse results from part I but you may wish to change the way you present them.)
    - If errors were identified in Part I then you need to correct these.
  - Establish your statistical evidence (you can reuse results from part I but you may wish to change how you present it e.g. use a table or correlations or differences and a range of graphs in a single figure with a short paragraph discussing key findings and how these influence your analysis or a paragraph per relevant finding with supporting graphs in figures etc.)
  - You need to either include the concept you investigated using dimension reduction or an alternate proxy for it.
    - Present your findings for model
    - Interpret your findings for model
    - Illustrate your findings for model.

## Discussion

- Discuss your findings.
- Comment on compare effects, fit, coefficients etc.
- Consider how you could extend your work in the future

## References