

Example Description

Your Name (PhD student)
ETHZ D-WESP
Your Institute
Your Supervisor

In order to maximize our efficiency please do:

- Send us a **PDF** document!
- Do not exceed 1-2 pages.
- Remember that we are very likely not experts in your field, and we get lost if too many abbreviations are used in the text
- Descriptions can be written in German or English

1 Short Rationale

Briefly explain the rationale of your project. What is the purpose of the project and what is your goal? Try to find a balance between complexity (as low as possible) and understandability (as high as possible). We have limited resources. Please prioritize what problems you want to discuss with us.

Examples:

- *I do research on ...*
- *It is known that ...*
- *We want to investigate the relation between ...*

2 Problem Description

Explain the **necessary** background of your problem. Do this in the simplest way that enables us to help you. Restrain from using field-specific technical terms or abbreviations that we likely do not know. Instead, tell us which challenges you face. What is difficult or complicated? What are the conflicting opinions?

3 What you want us to take a look at beforehand

To increase the efficiency of our meeting, you might want to provide further information to us. Fill in the following (optional) subsections if they apply to your request:

3.1 Hypotheses

If you have already formulated hypotheses for statistical testing, list them here:

- Hypothesis A
- Hypothesis B
- ...

3.2 Experimental Design

If your request revolves around an experiment/ observational study, use this section to describe your experiment. A hand-drawn sketch or a graphic is often helpful. The details of how the experiment/study is conducted are often crucial for the statistical analysis. Try not to be redundant. Omit filler words.

Examples:

- *120 teachers from 6 different schools in Switzerland were given a questionnaire ...*
- *Treatment and placebo were randomized to 100 rats in cages containing 10 rats each ...*

3.3 Data available (and data analysis)

Describe your data, such that we get a good idea of the exact structure. A screenshot of the actual head of the data can help as well.

Response/ Dependent Variable/ Y-Variable: Is there one (or more) response variable? If yes, name and describe it. What values are possible?

Predictors / Independent Variables/ X-Variables: What are the predictors? Name and describe them. What values are possible?

- **Treatment:** (categorical variable) placebo / nothing / pill A / pill B
- **Block:** (categorical variable) Number of the cage the subject was placed in.
- **Blood Volume:** (continuous variable) Is measured on the individual level in milliliters. Can only be positive.
- ...

Illustrations of the data are welcome and might also reveal some caveats. Please keep the variable names simple.

3.4 Considered methods

I think ... might be a good idea. I was also advised to try ...

3.5 What I have tried so far

Fitting a mixed model using `lmer(...)`. The problems are ...

You can also place **short** code snippets here. For example, a model specification.