

## How to write an effective statistical plan for your grant

### Content

Funding bodies increasingly recommend, or even require, a statistical design plan in grant applications. Statistics cannot rescue a poorly designed protocol after the study has begun. It is therefore never too early to start planning a study's data management and statistical analysis.

Moreover, the definition and disclosure of an *a-priori* plan can help researchers achieve sound and reproducible science and avoid practices that can systematically bias their research (such as p-hacking, publication bias, and HARKing).

Here, participants will gain more confidence in data handling and acquire the right tools to design their next study and strengthen their grant proposal.

### Learning Objectives

- You will refresh your understanding of different study designs and common statistical tests
- You will perform a power analysis and sample size calculation
- You will become familiar with systematic biases and how to avoid them
- You will learn the importance of pre-registration
- You will learn how to foster open science

### Target Audience

You are a postdoc or PhD student and you want to learn how to write a statistical design plan for your next grant proposal submission.

<b>Language</b>	English
<b>Nr of Participants</b>	max. 15
<b>Instructors</b>	Dr. Marianna Rosso
<b>Date</b>	March 8-10, 2023, 08 a.m.-2:30 p.m.
<b>Location</b>	University of Bern, Main Building, Hochschulstrasse 4, room 104
<b>ECTS</b>	recommended 1 ECTS (3x6 lessons 45' each, approx. 5-10h preparation and homework)

### **Preparatory assignment**

Describe your (research) project in three sentences. Please locate your project within its statistical possibilities and submit a research question you would like to work on from the perspective of data analysis on. Please send this to [marianna.rosso@sheviz.org](mailto:marianna.rosso@sheviz.org) until Feb 15, 2023; 09:00 a.m.

In case somebody does not submit a project, this person's participation will be canceled, and the place will be offered to participants on the waitlist.

### **Individual Feedback**

Instructors will provide individual feedback in a plenary session on your preparatory and final assignment.