Preregistration Cheatsheet

Universität Münster

Definition

The practice of **publishing the plan for a study**, including research questions or hypotheses, research design, data analysis *before* the **data has been collected** or examined (Parsons et al., 2022). **Preregistrations** can be applied to confirmatory studies, exploratory research, and secondary data analyses.

How to preregister

Templates:
→ **osf.io/7xrn9**

Key elements to include:

1. Have any data been collected for this study already?
2. What's the main research question or hypothesis?
3. Describe the study design
4. Describe the data processing and analysis plan
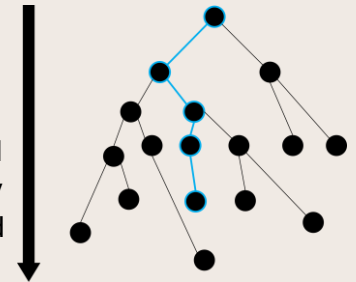5. Specify (dis)confirmation criteria for your hypothesis

Pro-Tip

Registered Reports (RRs) allow peer review of your study plan **before data collection**. Learn more here: **cos.io/rr**

Best practice

Compre-hensiveness	Plan all study details in advance, ideally including complete analysis scripts (R, Python, SPSS).
Structure	Use templates to structure preregistration, supporting review and comparison between planned and conducted analyses.
Transparency	Be transparent: create anonymized view-only links for blind review if needed and make preregistration public at publication.
Updates	If needed, update preregistration before data collection; if already collecting or using secondary data, document deviations.
Deviations	Since deviations are common, clearly explain how and why they occurred and their impact, including non-preregistered aspects.

The Garden of Forking Paths

Research involves **many decisions** (e.g., data exclusions, analysis methods). These choices can greatly **affect the results**. To **avoid bias** and **improve replicability**, key **analytic decisions** should be prespecified **before** seeing the data.

⚠️ Many analytic choices exist → unplanned choices can generate false positives!

Registries

OSF Registries	Comes with several templates, allows linking to articles posted on many preprint repositories, open source software, maintained by the non-profit Center for Open Science
ZPID PreReg Service	Primarily for psychological research and maintained by the Leibniz Institute for Psychology.

For more registries see: **t1p.de/preregistration**

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