

How to preregister research studies?

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How to preregister reviews (and other studies) on OSF?

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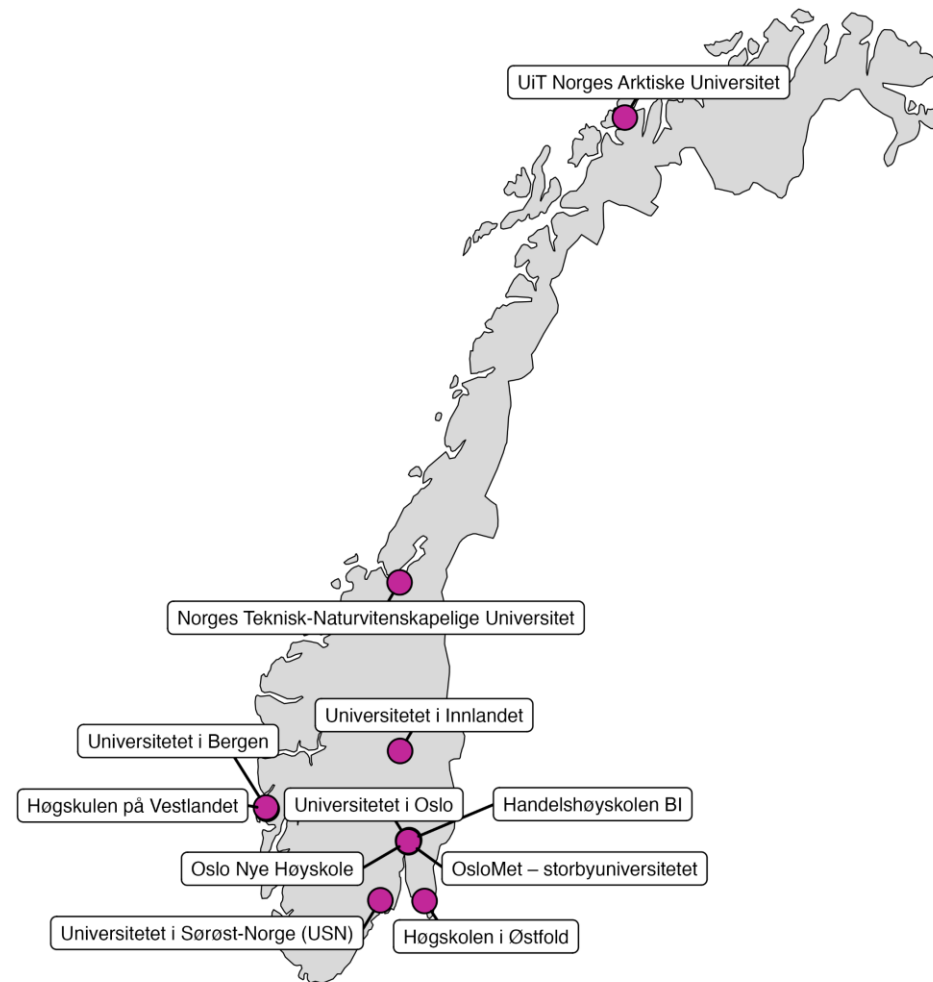


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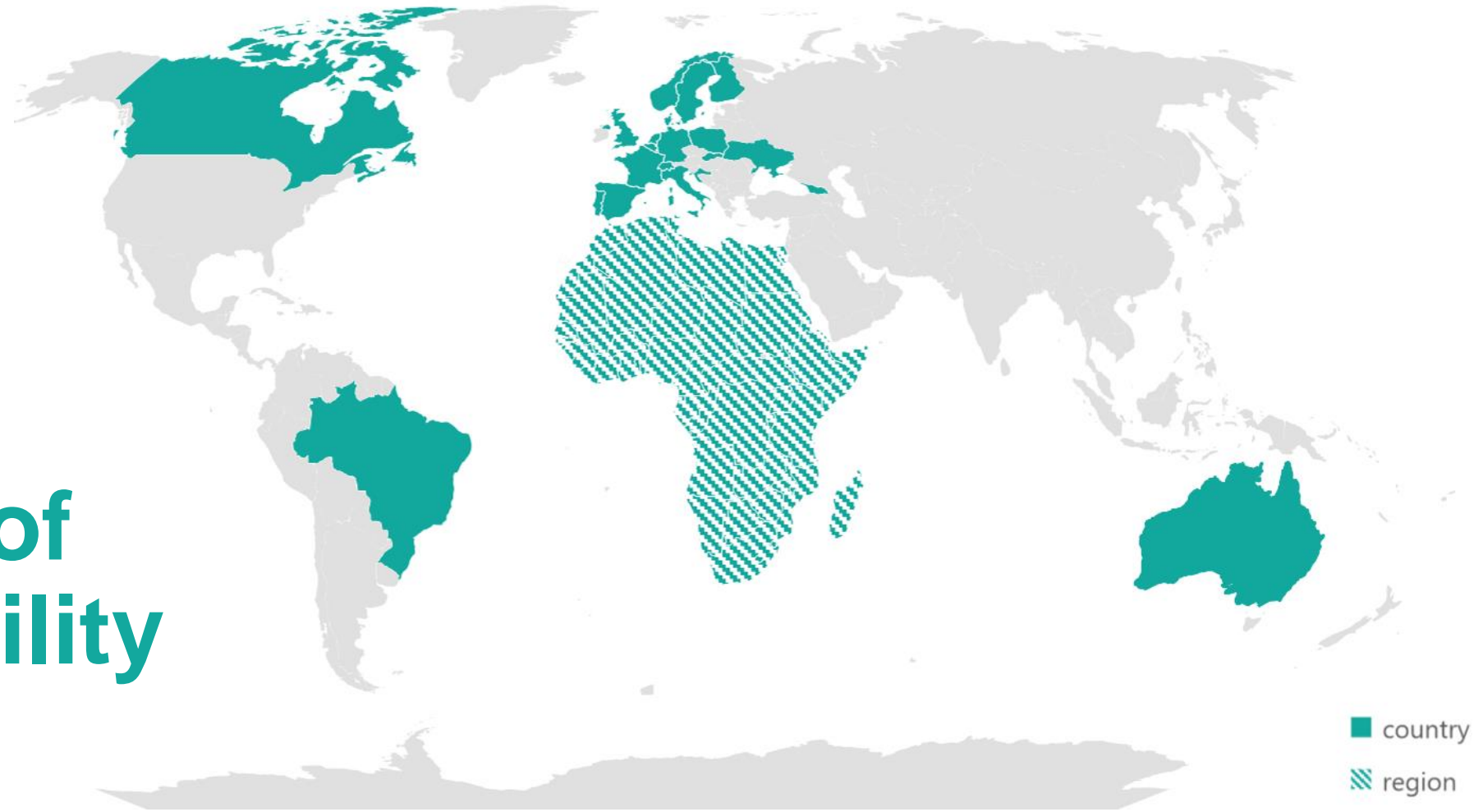


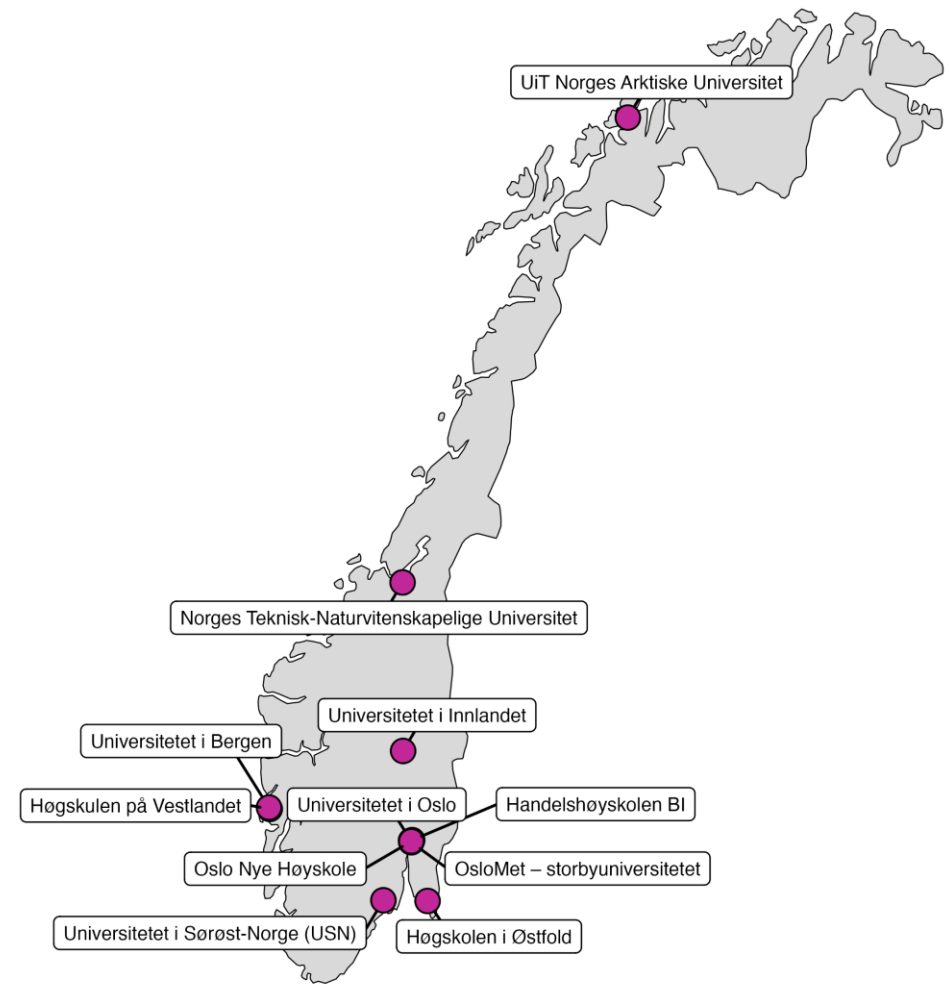
Max Korbmacher





The Global Federation of Reproducibility Networks







Vision and mission

*To promote and enable
rigorous, robust and
transparent research
practices in Norway*

NORRN's activity:

1. Education

designing and establishing appropriate training activities

2. Communication

disseminating new evidence, propagating best practices, and promoting culture change

3. Transformation

designing and evaluating research improvement measures and policy in collaboration with stakeholders

Roadmap for today

- Why should we consider preregistration?
- What is preregistration?
- How to preregister review (and other) studies?
- Let's try it on OSF!
- Q&A!

Credibility of academic
research is under debate

Negative or “boring” results are less likely to be published

(and more likely to end up in a file-drawer)



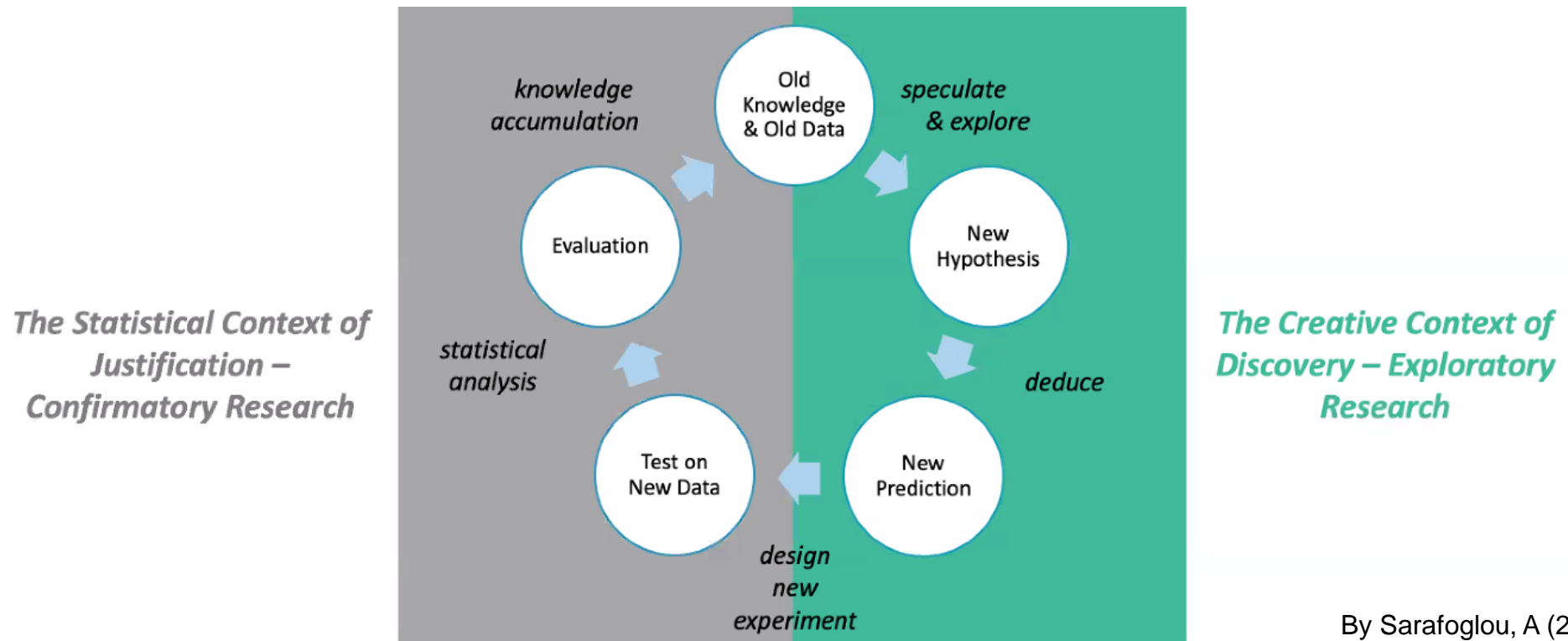
Researchers are biased and make arbitrary decisions

(also called “Researcher degrees of freedom”)



Confirmatory and exploratory research is being mixed up

(and prediction is confused with post-diction)



File-drawer problem and publication bias



Researcher degrees of freedom



Confirmatory vs exploratory research





“How should this be handled? Should there be some central registry in which one registers one’s decision to run a one- or two-tailed test before collecting the data?

*Should one, as one eminent psychologist once suggested to me, **send oneself a letter** so that the **postmark** would prove that one had **pre-decided** to run a one-tailed test?”*

- Bakan 1966

Preregistration



What is preregistration?

The specification of a research design, hypotheses, and/or analysis plan prior to observing the outcomes of a study.

Typically takes a form of a time-stamped, frozen document made available on an online platform.

How to preregister research?

A primer

Step 1: Choose the template

Focus	Type of research	Platform	Template
Discipline-specific	Clinical research	clinicaltrials.gov	Generic
		clinicaltrialsregister.eu	
	Animal research	animalstudyregistry.org	Generic
	Economics/Social sciences	socialscienceregistry.org	Generic
	Systematic reviews in health-related research	www.crd.york.ac.uk/prospero/	Generic
Discipline-general	Basic research	aspredicted.org	Generic
		osf.io/registries	OSF Preregistration, Qualitative, Secondary Data, Systematic Review

Step 1: Choose the template

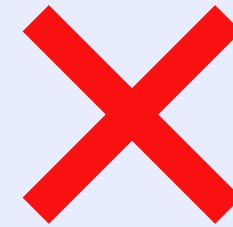
Focus	Type of research	Platform	Template
Discipline-specific	Clinical research	clinicaltrials.gov	Generic
		clinicaltrialsregister.eu	
	Animal research	animalstudyregistry.org	Generic
	Economics/Social sciences	socialscienceregistry.org	Generic
	Systematic reviews in health-related research	www.crd.york.ac.uk/prospero/	Generic
Discipline-general	Basic research	aspredicted.org	Generic
		osf.io/registries	OSF Preregistration, Qualitative, Secondary Data, Systematic Review

Step 2: Write up!

- **Think through** your research questions and/or hypotheses, your methods and/or planned analyses
- Be **precise** about your procedures, exclusion criteria, stopping rule, handling missing data
- **Try out** your methods and planned analyses in a pilot study or on mock data
- Think about possible **unexpected scenarios**

Step 2: Write up!

We are interested in testing group differences.

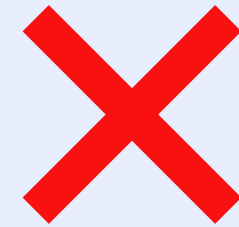


We hypothesize that groups A and B will differ in condition X based on...



Step 2: Write up!

*We will search internationally
acknowledged databases.*

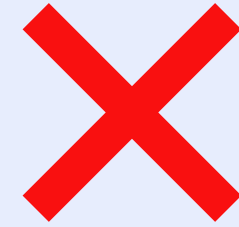


*We will search the following databases:
PubMed, Scopus, Web of Science,
PsycINFO.*

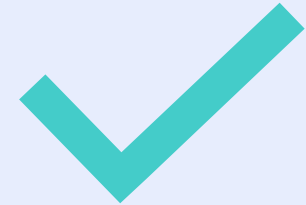


Step 2: Write up!

We will locate grey literature.



We will locate grey literature from the preprint servers ArXiv and PsyArXiv as well as the university repository.



Step 3: Register and time-stamp!



Typically, you can decide whether you want your preregistration to be open to public or closed (embargoed) until the results are published



Almost done...



Remember:

- Do not edit any files until the registration has completely archived.
- This will be permanent and cannot be deleted once submitted.
- This registration will be copied to Internet Archive as a backup.
- Title and contributors cannot be updated once submitted.

- ☐ **Make registration public immediately**
- ☐ **Enter registration into embargo**

Submit

Back

Step 4: Changes to preregistration

- Even the best plans might need **changes** once implemented
- When reporting deviations from the original, preregistered plan, be **explicit** about what has changed
- If needed, you can upload changes to your time-stamped preregistration or preregister a new plan (but refer to the original preregistration and explain why you made the changes)

Real-life example: integrative review

Integrative review of conceptions and facilitators of and barriers to reproducibility of qualitative research

Preregistered on Open Science Framework: <https://osf.io/q4xwk>

What is OSF?



Free, discipline-general platform that helps researchers:

- manage
- document
- share

their research plans, outputs and workflows



The open registries network

Add New Registration

You are submitting to OSF Registries. [Click here](#) to learn more about other hosted registries.

STEP 1

Do you have content for registration in an existing OSF project?

YES

NO

STEP 2

Which type of registration would you like to create? *

OSF Preregistration ▲

OSF Preregistration ▲

Generalized Systematic Review Registration

Open-Ended Registration

OSF-Standard Pre-Data Collection Registration

Pre-Registration in Social Psychology (van 't Veer
& Giner-Sorolla, 2016): Pre-Registration

Preregistration Template from AsPredicted.org ▼

Let's try it on OSF!



Go to: <https://osf.io/>

Thank you!



- Choose the right **template** for your preregistration (or create your own protocol and upload as pdf)
- Take a look at preregistration **examples** for similar studies before you write up yours
- Use **precise language** when writing up
- Remember that you can make **changes** to the preregistration or report non-preregistered findings, as long as you are **explicit** about what was planned and what was not planned.

Cochrane Norway, 23 June 2025



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