



## What is Preregistration?

This is when you specify your research plan in advance of your study and then enter it into a registry. The reason for this is to differentiate between exploratory and confirmatory research so the same data is not used to both hypothesize and test. The main onus on pre-registration is to ensure research can be reviewed and verified, even if results differ from the hypothesis. Replication in science provides evidence that things assumed to be one thing are proved to be that way. Negative results report if the effect works or doesn't work and the latter is still useful in building up knowledge and theory development.

Any study that is registered creates a time stamp, which proves it is the original hypothesis and keeps read-only versions of a project. The registered work can be kept as a snapshot of work before peer review. Files in the project can be modified, but the files in the registration cannot, which safeguards the research reproducibility credentials.

### SERVICES AVAILABLE

- **Centre for Open Science**  
This lists journals that accept submission of registered reports. It currently lists over 300 titles that support pre-registration as submissions for both regular and special submissions. The journals include, BMC Medicine, F1000, Nature, PLOS and Scientific Reports.
- **OSF Registries**  
This not just manages reports but also includes associated files, data, code and protocols, so the entire research project is captured and worked upon.
- **Protocols.io**  
Used to register and share protocols, includes versioning which increases reproducibility as the exact protocol can be identified.
- **AsPredicted**  
A platform to share studies and timestamp the research.

### How does it work?



There are two different ways of registering a report:

- **Preregistration:** A research plan or study protocol, outlining decisions associated with the study design, methods, and analysis to be applied, is submitted prior to commencement of data collection or analysis. This enables a distinction to be established between hypothesis testing and hypothesis generating research.
- **Registered Report:** A document that outlines the study design, methods, and analysis plan of a study which is submitted to a journal for peer review and publication. A registered report undergoes two stages of peer review: stage 1 is intended to evaluate the validity of the plan prior to performing data collection, and Stage 2 is intended to determine if the researchers have followed their study plan following write-up of research findings.

