

Preregistration Standards for Research in Quantitative Psychology

The American Psychological Association, British Psychological Society, and German Psychological Society have partnered with the Leibniz Institute for Psychology Information and the Center for Open Science to create Preregistration Standards for Quantitative Research in Psychology. Preregistration allows researchers to specify and share the details of their research in a public registry before carrying out the research.

To view the launch event for the standards and learn more about preregistration, visit the following webpage:

www.apa.org/pubs/journals/resources/preregistration

The questions below were asked by launch event attendees. We hope the responses provide clarification and inform your decision to adopt the new standards!

- 1. How does clinical trial preregistration (e.g., at clinicaltrials.gov) fit into these new psychology preregistration standards? Should researchers register their trial and submit a preregistration form as well?**

Clinical trial preregistration is a great example of an established framework for registering research design. There is no need to preregister using different templates; for those engaging in clinical trials, clinicaltrials.gov and similar repositories are a great option.

- 2. I'm curious about the best practices of how we should report any deviations in the preregistration. My current approach is detailing all deviations in supplementary materials, but I doubt that this is a good practice. Should we report all the deviations in the main article or write them in a separate document (and put them in the supplementary materials)?**

Deviations should be included in the final manuscript or a Transparent Changes document (see this Preregistration Manuscript Checklist for more details: osf.io/zwkqj).

- 3. Can preregistrations be edited/updated before data collection?**

If a mistake is noticed in the Preregistration, it can be updated in a 48 hour timeframe; but any changes that occur once the study has started should be documents in a Transparent Changes document and not the Preregistration itself.

- 4. Do we update preregistration with each amendment to protocol throughout the research process?**

We recommend you keep good documentation of amendments to research protocols, and then include them in your final research report. Deviations from the original plan are likely to occur; what is important is disclosing them in the final report. (Check out the Transparent Changes Template Document here: osf.io/yrvcg).

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- 5. What does this new preregistration template offer over and above pre-existing templates, such as OSF quantitative preregistrations? Could we have too much of a good thing, with people being overwhelmed with many different preregistrations based on the same methodology?**

Part of the goal of this task force is to signal that major psychological societies are committed to transparent research practices, such as preregistration of design and analysis plans. To that end, we support researchers selecting the template that works best for them. Our attempt was to make a thorough template that would encourage detailed, upfront planning that aligns with the final publication.

- 6. To what extent, do you recommend, reporting all exploratory analyses that are preregistered along with the more important results on the preregistered confirmatory hypotheses in a write up of the research?**

We recommend reporting on all exploratory and confirmatory analyses that were planned in the preregistration, as well as any determined after the study was preregistered.

- 7. Some of my colleagues say that you are required to report exploratory analyses. But this seems to not distinguish between planned and exploratory. Thoughts?**

We recommend that researchers distinguish between hypothesis confirming and exploratory research plans in the preregistration. If additional analyses are added after the preregistration, researchers should document this in a Transparent Change document and the final publication.

- 8. Would we expect funders to require preregistration, the same way they expect the data to be in the public domain?**

Some funders do require preregistration of some research designs, such as Clinical Trials.

- 9. Can you just approach a journal and ask them for a registered report? Or would you typically have to look for journals that offer this? If the latter, who can convince more journals to engage in registered reports?**

If you have a preregistration you'd like considered for a registered report, you'll need to select one of the 250+ journals that currently offer them (cos.io/initiatives/registered-reports). If you want to submit one to a journal that doesn't offer Registered Reports, you can always suggest that the editor consider the article type!

- 10. Is APA going to require reregistration for APA journals? If so, starting when?**

APA is not currently planning to require preregistration for publication in our journals. We recommend that researchers try out preregistration, and if a design isn't preregistered, to be transparent in the reporting out of research, including distinguishing between planned and unplanned analyses. See also: www.apastyle.org/jars

- 11. As a journal editor, where do we go to view preregistrations?**

Journal editors can check on the preregistration in a repository such as [OSF](https://osf.io) and [ZPID](https://zpid.org). Authors should include the persistent unique identifier in the author note.

- 12. Will preregistration help for the acceptance of the research manuscript sooner?**

Some journals use the Registered Reports article type, in which peer review is conducted after the study is designed and preregistered, and again after the manuscript is completed. The advantage to the RR design is that researchers receive feedback before conducting the research, and an editor can commit to the importance of the research question regardless of the study outcome.

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- 13. On a similar note, I have resumed working on a manuscript for which the analyses were conducted at a time before preregistration started to become as appreciated as it is today. How should I best proceed with this work?**
- Be clear and transparent in reporting what you planned before conducting the study, and what any analyses you added after conducting the study. For more, see the APA Style Journal Article Reporting Standards (www.apastyle.org/jars)
- 14. Is preregistration open to the readers or the intending researchers?**
- Depending on the repository, you may select to keep the preregistration private until an article is published reporting on the preregistered design. (OSF offers private until publication).
- 15. How should researchers report preregistration in their papers? Are there examples?**
- Preregistration persistent unique identifiers should be included in the author note. If the manuscript will undergo masked review, include the link in the note to the editor and not the manuscript to undergo review.
- 16. Will the preregistration template be integrated into APA writing style?**
- The preregistration template was based in part on the APA Style Journal Article Reporting Standards for quantitative methods (psycnet.apa.org/fulltext/2018-00750-002.html).
- 17. How to handle preregistration archive of non-English speakers? Or is it possible to prepare the preregistration documents by using local languages? There is a trend for WEIRD Scholars to encourage/help non-(English speaker) WEIRD scholars to publish in the peer-reviewed journals. But pre-registration mandatory seems difficult to follow by non-(English speakers)WEIRD scholars. Not all research conducted will be written in English.**
- This is a great point, and we'd love to be able to work to produce a template in different languages. This would likely not be a direct translation, but would need to accommodate to local research norms.
- 18. You mentioned how close an ethics application and preregistration may be. Is there any use in exploring one document to reduce the amount of duplication?**
- Generally, the ethics application is not as detailed. For example, it might not include anything about planned analyses. It is a useful starting point for a preregistration, but not likely sufficient without more detail.
- 19. What is the role of preregistration if multiple replications of the hypothesized effects are presented in a paper?**
- If the design or analyses varies for the multiple replications, you would document each in a separate preregistration.
- 20. What would you recommend as a good practice if you (or a reviewer) finds out that your data requires a different type of analysis than was preregistered?**
- If you conduct a different analysis than planned, document it in a Transparent Change Document that explains why you selected a different analysis as well. The beauty of preregistration is that if you have others review your plan before doing the study, they might be able to suggest the different type of analysis up front.
- 21. Is preregistration a tool used only in psychology?**
- No, preregistration is not only for psychology—it is used in medicine, biology, and other disciplines as well. Check out the list of journals participating in Registered Reports here (www.cos.io/initiatives/registered-reports)

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22. What is the difference between preregistration and research design?

The preregistration is the documentation of planned hypotheses, research design, and analyses before beginning the research.

23. With preregistration, are you even “allowed” to carry out other than your planned tests? Where is the place for flexibility?

Yes, there is flexibility with preregistration. Document any additional tests is key, using a Transparent Change Document.

24. Is there preregistration for qualitative studies?

Yes! Here is one example: osf.io/j7ghv/wiki/home

25. What might be an incentive for fellow researchers to invest time in my preregistration?

Here are “Seven Selfish Reasons for Preregistration” psychologicalscience.org/observer/seven-selfish-reasons-for-preregistration#.WR3HbIMrLOS

26. In countries like India where regulations of the field are much weak, who would be the better agency to maintain a pre-registration database, the government or professional bodies?

If you are preregistering in English, you could use an existing repository such as [OSF](https://osf.io/), [ZPID](https://zpid.org/), or [AsPredicted.org](https://aspredicted.org/). In the United States and Europe, the government maintains registries specific to clinical trials.

27. Can pre-registration be formally peer-reviewed?

Yes, and it is with journals following the Registered Reports article type.

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