

Description

The field of academic publishing has been undergoing numerous changes in the past few decades. The replication crisis and publication bias are both serious issues that need to be addressed. As a response to these issues, the practice of pre-registering research studies is growing in popularity among researchers. What are the benefits and drawbacks in pre-registering your research? Let us discuss them in the article below.

What Is Pre-Registration?

Pre-registration means that prior to collecting actual data, you share the introduction and methods section of your paper with others. The practice first became the norm among researchers doing clinical trials after the New York attorney general's office sued drug giant GlaxoSmithKline in 2004. The lawsuit alleged that four unpublished trials showed that the antidepressant Paxil increased the risk of suicidal tendencies in young people. In the same year, the International Committee of Medical Journal Editors mandated clinical trial pre-registration. The practice has since been adopted widely within the fields of psychology and political science. Life sciences are slowly adopting it as well. The Center for Open Science has even created "The Pre-Registration Challenge," which offers 1,000 researchers $1,000 for pre-registering their studies.

Need for Pre-Registration

The practice of pre-registration aims to solve multiple problems that are widespread in academic publishing. Publication bias tends towards publishing positive rather than negative results, which as the above lawsuit showed, can be bad for research as a whole. Null or unexpected results can have just as much value as the more exciting positive results to our overall knowledge. Pre-registration also prevents HARKing, or "hypothesizing after results are known." In other words, we as researchers often like to imagine that we predicted the correct outcome of the study from the beginning.

We can divide pre-registration into two types: reviewed and un-reviewed. Reviewed pre-registration, also known as "registered report," means that a study's registration is submitted to a journal and reviewed by experts. Journals that allow or require registered reporting include Behavioral Neuroscience, Experimental Psychology, and the Journal of Business and Psychology. If accepted, your paper will be published regardless of the results. You can deposit an un-reviewed pre-registration

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in a public or private repository. Two such repositories include AsPredicted and the Open Science Framework.

The Pros and Cons of Pre-Registering Your Research

Pre-registration has benefits for you as a researcher. It guarantees clarity among collaborators and prevents accusations of p-hacking. If you choose to register your study using the reviewed pre-registered method, you will have a guaranteed publication and also have the chance to receive pre-analysis review feedback.

There are also several possible drawbacks to consider when deciding whether to pre-register your study. First, if you pre-register your study, there is always the small possibility that reviewers may scoop your research. Second, you may fear that pre-registration will limit your ability to conduct exploratory research. In fact, pre-registration only demands that you make your entire research process clear. For example, if your original hypothesis is null, but you come across an incidental finding, you can certainly include this in your paper. Pre-registration just makes it clear that the positive finding was incidental. Finally, it is true that the bias against publishing negative results remains strong. Pre-registration forces you to publish null as well as positive results.

Overall, there are some good reasons to seriously consider pre-registering your studies. The process is not particularly difficult. As the practice becomes more widespread, being an early adopter may reflect on you well. However, it is clear that the registered report method is currently the most beneficial to researchers.

Have you pre-registered a research study before? Do you believe pre-registering research is the wave of the future? Let us know your thoughts in the comments below!

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