Registered Reports 2.0
Introducing the Peer Community in Registered Reports

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These slides
https://osf.io/zyntc/
Registered Reports

**DEVELOP IDEA**
**DESIGN STUDY**
**COLLECT & ANALYZE DATA**
**WRITE REPORT**
**PUBLISH REPORT**

**Stage 1**
Peer Review

*Reviewers assess*
Theory, rationale, rigour, robustness of method

*In-principle acceptance*

**Stage 2**
Peer Review

*Reviewers assess*
Compliance with study protocol and whether conclusions are based on the evidence

Currently adopted by >300 journals

Early impacts are promising

- Popular with ECRs: ~80% first authored by PhD students or post docs
- ~5-10 times more likely to **disconfirm** hypotheses (60% vs ~12% across fields; Allen & Mehler 2019; 56% vs 4% in psychology; Scheel et al. 2020)
- Higher computational reproducibility than regular articles (Obels et al. 2019)
- Rated higher in quality than regular articles (Soderberg et al., 2021)
- Cited same or more than regular articles (Hummer et al. 2019)

But they aren’t perfect. 10 known limitations include:

1. Stage 1 review time
2. Needing to commit to a journal before results are known
3. Not well suited to programmatic research where one Stage 1 protocol could lead to multiple Stage 2 outputs (current model is one S1 → one S2)
4. Inconsistent editorial standards and levels of training/experience
5. Inconsistent transparency of accepted Stage 1 protocols (Hardwicke et al. 2018)
6. Inconsistent policies on open peer review
7. Inconsistent policies on open access and availability of Stage 2 articles
8. Unclear policies on applicability of RRs for analysis of existing data
9. Limited capability to work with funders on RR research grant models due to legal barriers that restrict cooperation between public funders and corporate publishers
10. Power resides with journals and (largely corporate) publishers to decide which RRs enter the peer-reviewed scientific record, not with authors and the broader scientific community
Peer Community in Registered Reports (PCI RR) is a free, non-commercial platform dedicated to reviewing and recommending Registered Reports preprints across STEM, medicine, the social sciences and humanities.

Once a submission is recommended by PCI RR following peer review, the revised manuscript is posted at the preprint server where the preprint is hosted, and the peer reviews and recommendation are published at the PCI RR website.

Authors then have the option to publish the preprint in a traditional journal, including a growing list of PCI RR-friendly journals that have committed to accepting PCI RR recommendations without further peer review.
Peer Community In
Registered Reports

Free and transparent pre- and post-study recommendations across research fields

How it works

Submit your RR to PCI RR as a private or public URL to a file in a repository (e.g. OSF, GitHub)

1. PDF, html, doc, rmd

PCI RR process Stage 1

2. PCI RR website
3. your RR is peer reviewed
4. revised versions
5. your RR is recommended

6. Preprint server (OSF preprints, arXiv, bioRxiv)

- deposit preprint at preprint server
- revised versions

7. Submit preprint to PCI RR

PCI RR process Stage 2

8. preprint assessed by recommender and reviewers
9. your preprint is recommended

Optional: submit to PCI RR-friendly journal where article is accepted without further peer review

Conduct your study

- Valid, citable final article AND can still be submitted to a journal
- Citable recommendation text + reviews published by PCI (doi)
- Open access
- Free for authors and readers
- Searchable
List of PCI RR-friendly journals

There are currently 22 PCI RR-friendly journals. The current list can be viewed in spreadsheet and PDF format, and details of each journal's commitment and eligibility requirements are also listed below.

For open access journals, authors are strongly advised to check the journal website for latest information concerning article processing charges.

Journals interested in becoming PCI RR-friendly can learn more about the requirements here and can apply to join here.

- Addiction Research & Theory
- Advances in Cognitive Psychology
- BMJ Open Science
- Brain and Neuroscience Advances
- Cambridge Educational Research e-Journal
- Cortex
- Experimental Psychology
- F1000 Research
- Infant and Child Development
- Journal for Reproducibility in Neuroscience
- Journal of Cognition
- Meta-Psychology
- NeuroImage: Reports
- PeerJ
- PeerJ Computer Science
- PeerJ Physical Chemistry
- PeerJ Organic Chemistry
- PeerJ Inorganic Chemistry
- PeerJ Analytical Chemistry
- PeerJ Materials Science
- Royal Society Open Science
- Swiss Psychology Open

List of PCI RR-interested journals

Where authors seek to maximise the chances of their manuscript being picked up by a PCI RR-interested journal, we recommend they consult the journal’s RR policy to determine what additional conditions may need to be met, over and above the PCI RR review criteria. For instance, some PCI RR-interested journals set a more stringent requirement on pre-planned evidence strength (including prospective statistical power or Bayes factors) while others may only consider RRs where data do not exist prior to in-principle acceptance (in line with Level 6 of the PCI RR bias-control taxonomy).

The list of PCI RR-interested outlets below includes a link to each journal’s RR author guidelines.

- Affective Science (RR author guidelines TBC)
- Biolinguistics (RR author guidelines)
- Collabra: Psychology (RR author guidelines)
- Nature Human Behaviour (RR author guidelines)
- PLOS Biology (RR author guidelines)

PCI RR-friendly journals commit to accepting PCI RR recommendations without further peer review. Authors decide which journal gets to publish their Stage 2 RR

https://rr.peercommunityin.org/about/pci_rr_friendly_journals
Other unique features

**Programmatic RRs:** One Stage 1 manuscript leading to multiple Stage 2 outputs
See: [https://rr.peercommunityin.org/help/guide_for_authors#h_52492857233251613309610581](https://rr.peercommunityin.org/help/guide_for_authors#h_52492857233251613309610581)

**Scheduled Review:** Following submission of a one-page Stage 1 “snapshot”, peer review is scheduled in advance so that the Stage 1 review time following full manuscript submission = days rather than weeks
See: [https://rr.peercommunityin.org/help/guide_for_authors#h_61998243643551613309672490](https://rr.peercommunityin.org/help/guide_for_authors#h_61998243643551613309672490)
Peer Community in Registered Reports: Stage 1 Snapshot

Briefly summarise the study protocol using this template (1 page max, A4). Please use Arial font size 10, single-spaced, with a 0.5 inch (1.27cm) margin. All italicised text should be deleted from the submitted template. All bold text, including the header above, must be included.

1. **Provisional title.** Choose a title for the submission. If a full Stage 1 submission is invited, this can be updated.

2. **Authors and affiliations.** List all submitting authors and affiliations. If a full Stage 1 submission is invited, this can be changed. For submissions involving a large group of authors, and where listing them all would use too much of the space allocation, it is acceptable to list only the corresponding author and their affiliation, and link to a google doc or other accessible file containing the full list of contributors.

3. **Field and keywords.** State the general field of research and any specific keywords that identify the sub-field and the research topic.

4. **Research question(s) and/or theory.** Briefly summarise the research question(s) that will be addressed, and where relevant, the theoretical basis of the proposal. For a Programmatic RR, anticipate which questions will produce which Stage 2 outputs.

5. **Hypotheses (where applicable).** Where relevant, state any predictions of the study. These can be stated in less precise terms than is required for a full Stage 1 submission, for instance, by referring to specific concepts rather than variables or measurements. If a full Stage 1 submission is invited, this will be updated and refined.

6. **Study design and methods.** Summarise in broad terms the study design, including (as applicable), key conditions and controls, data acquisition procedures, and variables.

7. **Key analyses that will test the hypotheses and/or answer the research question(s).** Summarise in broad terms how the data will be analysed. A detailed analysis plan is not required, but the clearer the link between the research question, hypotheses (as applicable), and analysis plans, the more likely the submission is to pass triage.

8. **Conclusions that will be drawn given different results.** Anticipate a range of possible/plausible results, what they would mean for theory or applications, and how they would answer the research question(s). For example, how would a particular hypothesis being supported vs. unsupported influence theory?

9. **Key references.** These must be numbered and include DOI URLs. To save space, the reference list can be presented succinctly in a single body of text using the following style: 1. Surname et al. (Year), https://doi.org/DOI. 2. Surname et al. (Year), https://doi.org/DOI, etc.
PCI RR Recommender's Entrance Test

Welcome to the PCI RR Recommender's Entrance Test. This test is designed to assess basic knowledge of the RR format, the core policies of PCI RR, and best approaches for tackling challenging scenarios.

The test includes 66 questions over 5 sections. Please allow 2 hours to complete the test.

All information that prospective recommenders need to pass this test is contained in the guidance and the links at the top of each section. A pass grade is 63 out of 66 points (95% correct) and the test can be taken as many times as necessary.
Example: post doc or PhD students wanting to complete a series of independent RRs

1. Design RRs and complete Stage 1 Snapshot

2. Post Snapshot on the OSF, either publicly or under private embargo

3. Submit the snapshot URL to PCI RR via the “Scheduled Review” track

4. Select future date for review (e.g. 6 weeks head), and once passed the recommender triage process, set to work writing a full “programmatic RR”

5. While designing & writing the Stage 1 RR, consult the list of PCI RR-friendly journals to ensure that you meet any additional requirements for whatever target journals you have in mind (e.g. concerning evidence strength, bias control, etc)

6. Submit your full Stage 1 manuscript by the due date. Because review is planned in advance, reviews & an interim recommendation can be expected in about a week

7. If, likely following revision, you gain in-principle acceptance (IPA), PCI RR will tell you which journals are eligible outlets & will auto-endorse the IPA decision. You can also ask us for a provisional steer prior to IPA. PCI RR makes this decision.

8. With IPA in hand, you now have an approved programme of multiple RRs accepted in advance which you can eventually choose to publish in any eligible PCI RR-friendly journal (or you can submit anywhere else as you see fit). Each Stage 2 RR can go in a different journal.

9. Do research and publish each Stage 2 output as you progress without further peer review, in journal of your choice.
## What are the benefits of PCI RR?

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Regular non-RR article at a traditional journal</th>
<th>RR at a traditional journal</th>
<th>RR at PCI RR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offers <strong>pre-study peer review</strong></td>
<td>☒</td>
<td>☑</td>
<td>☑</td>
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<tr>
<td>Offers <strong>in-principle acceptance</strong> before results are known</td>
<td>☒</td>
<td>☑</td>
<td>☑</td>
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<tr>
<td>Offers <strong>programmatic RRs</strong>: one Stage 1 RR leading to multiple Stage 2 manuscripts</td>
<td>☒</td>
<td>☑</td>
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<tr>
<td>Offers <strong>scheduled review</strong> to accelerate the Stage 1 review process</td>
<td>☒</td>
<td>☑</td>
<td>☑</td>
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<tr>
<td>Requires handling editor (or recommender) to have <strong>proven their knowledge</strong> of RRs by passing an entrance test, which serves as useful training of a rarely taught skill</td>
<td>☒</td>
<td>☑</td>
<td>☑</td>
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<tr>
<td>Peer review undertaken <strong>independently</strong> of any journal</td>
<td>☒</td>
<td>☑</td>
<td>☑</td>
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<tr>
<td>Author has the <strong>power to decide</strong> their destination journal (if any)</td>
<td>☒</td>
<td>Very rare</td>
<td>☑</td>
</tr>
<tr>
<td><strong>No need for author to decide on destination journal</strong> until after Stage 2 acceptance by PCI RR</td>
<td>☒</td>
<td>Very rare</td>
<td>☑</td>
</tr>
<tr>
<td><strong>Peer reviews</strong> for accepted manuscripts <strong>published online and free to read</strong></td>
<td>☒</td>
<td>Very rare</td>
<td>☑</td>
</tr>
<tr>
<td><strong>Free</strong> for authors and readers</td>
<td>Depends on journal</td>
<td>Very rare</td>
<td>☑</td>
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Further information about PCI RR

Guide for Authors  https://rr.peercommunityin.org/help/guide_for_authors

General Information  https://rr.peercommunityin.org/about/about

FAQs  https://rr.peercommunityin.org/help/faq

Information for adopting journals  https://rr.peercommunityin.org/about/become_journal_adopter

First Stage 1 IPAs

These slides:  https://osf.io/zyntc/

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