Registered Reports

Guidelines for Authors

Note: For general instructions for submissions, please also consult the Instructions for Contributors.

Registered reports are empirical articles for which the design and proposed analyses are pre-registered in order to minimize bias in deductive science. That means before any data is collected, the theoretical footing and methodological aspects of the proposed research are evaluated by editors and reviewers, with only the highest quality submissions accepted in advance.

Initial submissions must include a description of the key research question along with background literature, hypotheses, experimental procedures, analysis pipeline, statistical power analyses (if appropriate), and pilot data (where applicable).

The three stages of the submission/review process are schematised as follows:



Each of the stages is described in detail below.

Stage 0: Initial proposal (submitted by email to the Editor)

Before submission of a stage 1 proposal, permission needs to be obtained from the editors. To do so, authors should submit an initial proposal with sufficient detail to evaluate quality standard and appropriateness for the RR format via e-mail to the editorial office's email (<u>bilingualism.journal.blc@gmail.com</u>). The initial proposal should contain:

- 1) Brief description of the planned study (i.e., background, research question, basic proposed methodology) (Length: 1 paragraph)
- 2) Justification for Registered Report (RR) rather than traditional submission types (Length: 1-3 sentences)
- Statement about which types of data (i.e., raw data, digital study materials, laboratory log, stage 1 manuscript, etc.) will be shared upon publication

If the proposal is evaluated positively, the editors will invite the authors to proceed to Stage 1 and submit the Stage 1 manuscript.

Stage 1: Manuscript before data collection (submitted via BLC ScholarOne website)

Stage 1 submissions should be written in the future tense and contain the following sections:

- 1) Abstract
- 2) Introduction
 - A thorough literature review providing background information, motivation of research questions, full description of aims and hypotheses (N.B.: No alterations following IPA possible → see below for details)
- 3) Methods plus Addendum
 - Sample characteristics, including procedures for defining inclusion and exclusion criteria and outlier removal.
 - Statement whether informed consent will be obtained and whether the study has approval by a local Ethical Committee.
 - Experimental procedures in sufficient detail for potential replication by other researchers (N.B.: If not adhered to exactly, Stage 2 manuscripts may be rejected).
 - If applicable, statistical power analysis, justification of estimated effect sizes based on existing literature. In the case of highly uncertain effect sizes, authors may employ a variable sample size and conduct an interim data analysis; in this case, inspection points need to be stated in advance, appropriate Type I error correction for 'peeking' must be employed, and a final stopping rule for data collection must be provided.
 - If possible, explicit quality control checks (e.g., absence of floor and ceiling effects in data distributions, positive controls, other quality checks that are orthogonal to experimental hypotheses).
 - Timeline for data collection and resubmission after Stage 1 (N.B.: Extensions may be negotiated with the action editor if necessary).
 - In case of follow-up experiments based on the outcome of prior ones, there are two options: Authors may (1) describe the logic of the follow-up experiments and outline carefully (e.g., in a flow-chart) which outcomes would lead to the selection of the individual follow-up experiments or (2) initially submit the first experiment as RR and submit the follow-up experiments into the RR process as they arise (i.e., as successive Stage 1 submissions).

N.B.: The Methods section should contain information standardly found in a methods section, with the addendum containing the additional material which would be necessary for an exact replication.

- 4) Detailed Data Analysis Plan
 - Proposed analysis pipeline (incl. pre-processing steps), precise description of planned statistical analyses (incl. consideration of Type I error inflations), covariates and regressors.
 - If analyses depend on the outcome of prior analyses, contingencies must be specified and adhered to.
 - Planned course of action in case of non-convergence of statistical models.
 - Any possible free parameters should be specified in advance.
 - Justification for the particular analysis plan.
- 5) Potential Results and Implications
 - Description and interpretation of potential outcomes (to author's best ability), specifying the theoretical implications of the different outcomes.
 - If possible, dummy graphs for illustration.

6) Timelines

- Timeline for completion of the research
- Timeline for Stage 2 manuscript
- 7) Protocol transparency
 - Statement confirming that, following Stage 1 in-principle acceptance (IPA), the authors agree to register their approved protocol on the Open Science Framework (<u>https://osf.io/</u>) or another recognised repository, either publicly or under private embargo until submission of the Stage 2 manuscript.

For the submission via the BLC ScholarOne website, select "Registered Report (Stage 1)" as manuscript type.

After successful in-house review, submissions will be sent for external review. Following Stage 1 peer review, there will be three possible outcomes: (1) The manuscript is accepted (in-principle acceptance (IPA)); (2) the authors are offered the opportunity to revise (multiple rounds of review are possible); or (3) the manuscript is rejected. For more details on the review process, see <u>Instructions for Reviewers of Registered Reports</u>.

Note: Any deviation from the stated experimental procedures after IPA could lead to the rejection of the manuscript at Stage 2.

In cases of alterations after IPA due to unforeseen circumstances (e.g., change of equipment, methodological advances, technical errors), the authors should immediately seek permission from the editors (i.e., prior to data collection). If permission is granted and alterations are limited to minor changes to the protocol, IPA is preserved and the changes must be reported in the Stage 2 submission. In cases of more substantial changes, the manuscript must be withdrawn and resubmitted as Stage 1 submission.

In any case, all registered analyses must be conducted. In addition, unregistered analyses may also be included in the final manuscript (see below).

Stage 2: Full manuscript submitted for review

Once the studies are completed, authors resubmit their manuscript for full review (i.e., the system will consider your manuscript as a new submission with a new number. On the BLC ScholarOne website, select "Registered Report (Stage 2)" as manuscript type. Stage 2 requires the following additions:

- 1) Submission of raw data and laboratory log
 - It is not permitted to include data acquired prior to the date of IPA (except for pilot data or exploratory analyses involving data collected prior to the IPA, which must clearly be marked as such).
 - If applicable, guidance notes for raw data to enable replication of the analysis pipeline.
 - Relevant analysis scripts and other experimental materials that would assist in replication (e.g., stimuli and presentation code, analysis scripts). This material must be referenced in the main document.
 - Raw data should be archived (not included as supplementary material). Supplementary
 figures, tables, or other supplementary methods can be archived together with the data or
 included as standard supplementary information.

Note: In the cover letter, the authors must certify that all data, with the exception of pilot data, were collected after the date of IPA. Please also state your original submission number here.

- 2) Background, Rationale and Methods
 - Introduction should not be substantially altered from the approved Stage 1 submission (minor stylistic revisions are allowed).
 - Hypotheses cannot be amended or appended.
 - Textual (apart from typographical) changes to the Introduction or Methods must be clearly marked.
 - Relevant literature published post-IPA date, should be clearly marked and will require approval at Stage 2. If substantially impacting the hypotheses, the new literature should be covered in the Discussion instead.
- 3) Results and Discussion
 - Outcome of all registered analyses must be reported except if subsequently shown to be unfounded (in such cases, the authors, reviewers, and editor must agree that the analysis is inappropriate; the analysis would still be mentioned in the Methods but omitted with justification from the Results).
 - Additional, not registered analyses may be included. They must be clearly justified in the text, appropriately caveated, and reported in a separate Results section "Exploratory analyses".
 - For null hypothesis significance tests, exact *p*-values and effect sizes for all inferential analyses have to be reported.
- 4) Project Plan
 - The IPA-version of the Stage 1 manuscript must be included for comparison.
 - Please select "Research Plan (for Registered Reports only)" as file designation when uploading.
 - Upon acceptance, the project plan will be published as supplementary materials.

The resubmission will most likely be considered by the same reviewers as in Stage 1 but could also be assessed by new reviewers.

Manuscript Withdrawal and Withdrawn Registrations

Authors with IPA may wish to withdraw their manuscript following or during data collection due to technical error or inability to complete the study. In such cases, manuscripts can be withdrawn at the authors' discretion. However, partial withdrawals are not possible (i.e., authors cannot publish part of a registered study by selectively withdrawing one of the planned experiments); instead, the entire paper must be withdrawn. If studies are not completed by the agreed Stage 2 submission deadline will be withdrawn – unless an extension was negotiated with the editor.

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