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## REF Working Group Report on Definitions of Rigour in Research

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# REF Working Group Report on Definitions of Rigour in Research

The REF criteria for research quality focuses on three dimensions, originality, significance and rigour, with the last of these typically taken as central to decisions on overall rating for outputs on the 1\* to 4\* scale – without good rigour, significance is reduced even where originality is good.

Despite this, rigour frequently seems to be the aspect of the REF criteria that people find most opaque and difficult to assess. The BPS Research Board has been attempting to build some shared perspectives on this over the last two years, and following discussion at the October 2022 Research Board meeting, it was decided to set up a small working group to look at definitions of rigour and how these might apply across different aspects and methods of psychological research. The aim of the working group was to generate concise, headline guidance on definitions and issues relating to rigour that researchers (both those being judged and those doing the judging) will hopefully find helpful in developing and evaluating publications ahead of the next REF.

At a meeting of the working group in July 2023, a range of points were identified that might potentially form part of this guidance. Subsequent consultation with the wider membership of the Research Board on these points led to subsequent expansion and revision, resulting in the following:

- Methods of achieving and assessing research rigour are unavoidably specific to the type of research being conducted and reported. However, it is possible to identify core features that span multiple methods, i.e., that are common to quantitative and qualitative approaches.
- Rigour can be defined as the degree and clarity of fit between a study's goals, its research design, its implementation and its reporting, including interpretation of results.
- Methodological coherence is central. This applies equally to quantitative, qualitative and mixed methods research, and rests on clear, reasoned and integrated fit of methodology to the research questions or aims that have been identified.
- Research aims therefore also need to be coherent. Rigour requires careful consideration and tight analysis at the planning stage of research objectives and the conceptual framework that underpins these, to ensure these are appropriately and explicitly aligned. This analysis should form part of subsequent reporting.
- Rigour entails avoiding fixed approaches and narrow paradigmatic perpetuation i.e. incremental research that does things in a certain way only because this is what past researchers have done. Careful consideration from first principles of what is

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suitable to address a research question properly is crucial. In this respect, rigour is inherently connected to originality, and thence significance.

- Any initial pilot work should also be conducted with this same degree of rigour, to ensure a strong link between analysis of objectives and full implementation of methodology.
- Rigour is not just about meeting REF quality standards in terms of methodology, but about appropriate evidence provision and persuasive communication with the intended audience, i.e., research should make a meaningful impact on its audience.
- The above entails clear and well-organised reporting of all aspects of the research, including its rationale, the methods employed and the interpretation of outcomes (appropriate and thorough data analysis is one dimension of this), with due acknowledgement of limitations.
- Openness and transparency about what has been done and why is a crucial part of engaging in rigorous research processes since these help promote clarity of thinking and design from the outset of the research, which then feed through into practice and reporting.
- Where it is feasible, co-production of research may help achieve rigour by putting communication, accuracy and clarity centre-stage.

This guidance is intended to be the start point for dialogue between researchers, not least with REF panellists themselves, rather than prescriptive. The Research Board will also aim to work with the BPS Education and Training Board to promote grasp of rigorous research skills from the start of undergraduate programmes, which will help to enhance the quality of psychological research in future years.

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