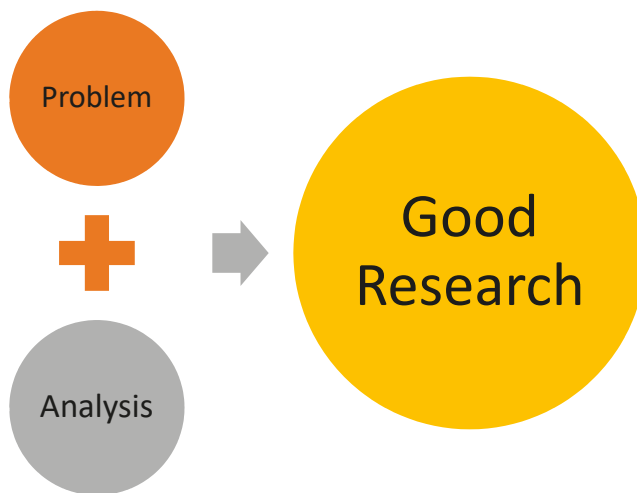


17 Judging Research: How Should Research and Researchers Be Evaluated and Rewarded?

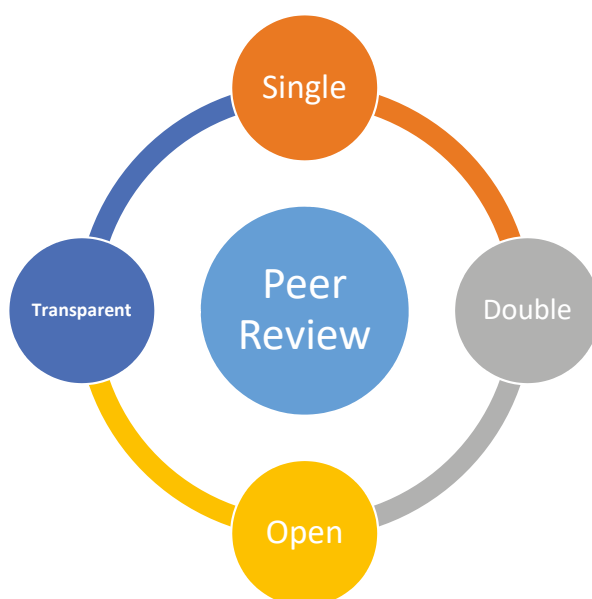
Subhan Danish

For the evaluation of any research, assessment of researcher ideology and financial interests are two major and basic aspects. During the assessment of research, a description of a well-defined question or problem related to past and present is very important, as it significantly diverts the attention of any reader towards research [1]. Analysis and presentation of data is a 2nd major aspect in that regard. It delivers solid evidence related to critical assumptions, contrary to findings and alternative interpretations including original sources, alternative perspectives and criticism. Good research may use anecdotal evidence, i.e., selected to illustrate a concept. However, it does not rely on them to draw conclusions. In addition, peer review by qualified experts played an imperative role in the improvement of research by elevating the possible errors, limitations and contradictory evidence. This does not mean that only peer-reviewed studies are useful or everything published in professional journals is correct. However, the process of peer review encourages the open debate about issues or problems that are discussed in a research article [2].



Type of Peer Review

Peer review comes in many types, i.e., single- or double-blind peer review, open or transparent peer review. In single-blind peer reviews, authors do not know about the reviewer's identity and the journal does not publish referees reports. In double-blind peer review, neither the author nor reviewers know the identity of each other and the journal does not publish referees reports.



Desirable Practices for Judging any Research As a reviewer, some important points should be kept in mind during the evaluation of any research. These may be:

1. Timely reporting.
2. Be honest during the evaluation of research.
3. Check each source citation. Either the citation source is primary or secondary.
4. Carefully understand the research questions and associated broader issues.
5. Assess the critical assumptions in connection with the analysis method (validated or rejected).
6. Examine the logical links between results, conclusions and implications.
7. Provides adequate references.
8. Indicates funding sources particularly any that may benefit from research results.

Time report

Both the editor and authors are keenly interested in smooth and timely reporting during peer review of any manuscript. By adhering to the deadlines set out by editors, reviewers also minimize the risk of issues for the authors. When authors submit their papers to any scientific journal, they also hope to have a decision on publication as soon as possible [2].

Honest and Constructive

Power always remains in the hands of the reviewers. Most editors are dependent on the reviewers' comments for the acceptance, revision or rejection of any manuscript. It is necessary that a reviewer should remain honest and counteractive during a review. Rather than rejecting the manuscript, the reviewer has large responsibilities to give suggestions that can improve the quality of the research article for further necessary action. According to my point of view, authors must get at least one chance to improve the quality of the article rather than straight away rejection. Testing the success of any change to peer-review practices requires that journals approve a modified review process for a limited period to assess the liquidity of change as an outcome [1].

Frequency of peer review

A reviewer must keep in mind that when he is invited to peer review it might not be a one-off task. Typically, a paper must go through two to three review cycles before publication. This is a positive attitude that not only increases the credibility of the research article but also depicts the constructive behaviour of a reviewer [1, 2].

How scientists should be rewarded

As the world of science becomes more complex, more studies require large teams of specialists. Yet in the world of academic publishing, the first and last authors of a journal article receive the lion's share of the credit. The names in the middle of the author list, the collaborators, get very little recognition, even if their contributions are large and essential. McNutt, previously editor-in-chief of the journal *Science*, discussed one change that would reward all collaborators and encourage more team efforts. Paula Stephan, professor of economics at Georgia State University, suggested that the scientific community develop more high visibility awards for group efforts. So, it is suggested that all the authors should be rewarded equally as the first and last author.

References

1. Gura, T. Peer review—unmasked. *Nature* **2002**, *416*, 258–260.
Neff, B.D.; Olden, J.D. Is Peer Review a Game of Chance? *Bioscience* **2006**, *56*, 333–340.
2. Clark, A.; Singleton-Jackson, J.; Newsom, R. Journal editing: Managing the peer review process for timely publication of articles. *Publ. Res. Q.* **2000**, *16*, 62–71.
3. Assessing Value in Biomedical Research: The PQRS of Appraisal and Reward John P. A. Ioannidis. *Muin J. Khoury JAMA* **2014**, *312*, 483–484.
4. Benedictus, R.; Benedictus, F.; Ferguson, M.W.J. Fewer numbers, better science. *Nature* **2016**, *538*, 453–455.
5. Hicks, D.; Wouters, P.; Waltman, L.; de Rijcke, S.; Rafols, I. Bibliometrics: The Leiden Manifesto for research metrics. *Nature* **2015**, *520*, 429–431.



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).