Peer Evaluation System

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Title

The potential and problems of peer evaluation in higher education and research.[1]

Summary

To ensure the high standards in science and research, peer review is necessary. It is like embodiments of mutual control. Peer review is better than any form of self regulation in higher education and research. Due to following points critics oppose peer review:

- Quality of peer review is affected by personal attribute of authors, reviewers and applicants.
- Reviewers have poor reliability on peer review process.
- Peer review lacks predictive validity.

A peer review system should be reliable, fair and valid. So if a scientific contribution, paper is published with help of reviewers, they should believe on peer review process and on its reliability and validity. A peer review based study programs goes through 3 stages which are:

- Internal Evaluation
- External Evaluation
- Implementation of reviewer’s recommendations.

Reliability (Agreement among reviewers)

When a scientific contribution meets a scientific standards and is treated as an advancement in scientific contributions. Such contributions are rated high when there is a high agreement among reviewers.
Limitations

- Experts engaged in debate for study of reviewer’s agreement for a study.
- Only reviewers final recommendation was taken.
- Limited document for agreement and disagreement of reviewers.

Not in all study or scientific contribution reviewer’s disagreement is taken in negative sense but in few cases it was taken into positive way for opposition. Moreover it is fact that too much agreement is something like work has not been done well. Even the case comes when two reviewers of same topic has no critical point common in their reviews.

Fairness of peer review process

The basis for giving feedback or reviewing of any scientific contribution should be the objectivity of that work not the attribute of authors, applicants and personal things. So there is a fear of lack of objectivity in peer review process. In many surveys authors were not agree with the objectivity of reviewers or the feedback they had given. Biasing factor while reviewing:

- Nationality
- Gender
- Area of research

Two major problems while finding biasing in peer review process:

- It is inconsistent, means for the same biasing factor take eg. gender, have two different result, one supporting biasing factor and other opposing this factor.
- It is impossible to perform peer review process unambiguously. We can’t remove all doubts from peer review process because it is done by human beings and it will reflect their interest, support, oppose in this review.
Predictive Validity of peer review process

While predicting the validity of peer review process, it can be cross checked by two phenomenon

- For a grant application for funding and acceptance of manuscript, should be based on no. of citations as it accepted and followed at international level.

- Grants and manuscript that are accepted have a no. of citations. So it shows a co-relation between citation and quality of research work that has been done.

As an experiment we have taken a list of papers that were rejected from a journal. So those papers were accepted in a journal of having lower impact factor than the journal from where these papers were rejected.

In addition the no. of citations for rejected papers that were later accepted in lower impact factor journal were also half of citations in comparison with higher journal. After a no. of agreement this result comes out:

- Article published by successful and non-successful applicants were cited considerably more often than the ”average” publications, and

- Excellent research performance can be expected more from successful than non-successful applicants.
Bibliography