

Criteria for Peer Review of Manuscripts and Grant Proposals: a systematic literature review

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Introduction

While it is widely acknowledged that criteria are an essential component of any procedure for judging merit, literature reviews on peer review discuss criteria briefly or do not mention them at all. We therefore conducted a systematic review of peer review criteria for the SSH. The research question guiding our paper is simply: what criteria are employed in the assessment of SSH research output or proposals? We restrict our review to the two most common forms of peer review: manuscript peer review and grant proposals. Also, we are interested in criteria that are developed from within the disciplines and therefore are not considering top-down induced criteria in general guidelines. The objective of the review was (a) to identify studies that develop or derive criteria inductively, (b) to determine how many of these studies focus on the social sciences and humanities, and (c) to provide a taxonomy of criteria. In the following, we will report preliminary findings on objectives (a) and (b), while at the conference we will present our findings regarding (c).

First results

Applying a systematic literature search, we have identified 12 studies on peer review criteria for grant proposals and 24 studies on manuscript peer review criteria. Remarkably, the first study investigating criteria for manuscript peer review dates back to the 1970s (i.e., Bonjean & Hillum, 1978), while the first studies on criteria for grant proposals emerged only in the 1990s (i.e. Hartmann, 1990). Obviously, these dates fall together with the emergence of modern peer review of journal articles in the 1970s (see Baldwin, 2017; 2018; Moxham & Fyfe, 2018) and the growing importance of competitive research funding in the late 1980s (Lepori et al, 2007).

Most studies investigated criteria for the medical and health sciences as well as the social sciences. Studies on other fields are scarce and no studies on manuscript criteria for the natural sciences and engineering /technology. A possible interpretation might be that all studies on manuscript criteria were conducted by scholars examining criteria applied in a journal of their own field. Since qualitative-inductive approaches are not part of the standard methods in the natural sciences and engineering/technology, it is unlikely that scholars study peer review criteria inductively. An interesting difference between the studies regarding

manuscript peer review and peer review of grant proposals concerns the methods used to identify the criteria: Manuscript criteria are mainly studied using actual reviews and comments from the review process; criteria for grant proposals are examined using interviews, surveys and the Delphi method just as often as using reviews.

On average, studies on manuscript peer review report more criteria than studies on grant proposals (44 and 26, respectively). In fact, six studies on manuscript criteria list more criteria than the study that reports most criteria for the assessment of grant proposals. We suggest that this difference might be linked to the fact that the manuscript peer review process aims at improving the manuscript under review. However, this doesn't seem to apply to all studies: if the studies with most criteria are excluded, the number of criteria is similar: 50% of the studies regarding manuscript and grant criteria report 8 to 19 and 7 to 21 criteria, respectively. We are currently elaborating a taxonomy of criteria used in peer review for manuscripts and grant proposals in the SSH

Preliminary conclusions

Even though criteria are an essential component of any evaluation process and although there are tens of thousands of publications on peer review (see Batagelj, Ferligoj, & Squazzoni, 2017), there are only very few studies that inductively examine criteria for reviewing journal manuscripts and grant proposals. Most studies examine criteria for the medical and health sciences and for the social sciences. These studies mainly focus on criteria used in the review process of a specific journal. We therefore conclude that more inductive studies on peer review criteria are needed, in particular regarding the humanities. We also identified a lack of comparative analyses of peer review criteria across journals or disciplines. Presenting a taxonomy of criteria for peer review, we will create the grounds for comparing the criteria applied in different disciplines. Thus, we will contribute to improving the understanding of the commonalities and differences of evaluation cultures in different fields.

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