# Peer-review process

Prompt: Make a critical review with.....

## Title

Prompt: Is the Title .....adequate for this abstract?:

The title should accurately reflect the content and scope of the research.

## Study Type

Prompt: Is the study type described?.

see Study Classification

## Objectives of the study

Prompt: Are the objectives of the study described?

Is the goal of the study described?

## Authors

Prompt: Are the roles of Authors described?

The roles and contributions of the authors are typically described in the authorship section of the full manuscript, which is typically found at the beginning or end of the paper.

In the authorship section, you would typically find information about each author's specific contributions to the research, such as study design, data collection, data analysis, writing, and other relevant contributions. This section is important for transparency and giving credit to each author for their contributions to the research.

## Systematic Method for Manuscript Review

A confusing or uninformative critique is not helpful to either the authors or the editor. If the reviewer disputes a point made by the authors, he or she should provide explicit justification for his or her argument. A critical justication for the strengths and weaknesses of the manuscript depends not only on the clinical expertise in a given subject area and the time available for the review but also on the

use of standard guidelines during the revision process. Without a standard and systematic revision, there is a risk of missing important parts of the manuscript. The consequence can be a supecial review, with no real justification and support for the editor's decision.

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The reviewers can promote a general evaluation of the proposed research question by using the FINER criteria: Feasible, Interesting, Novel, Ethical, and Relevant [1)].

They must verify closely the research question or objective (aim) of the study because it is the most important part of the entire project. All the components of the study are strictly structured based on a clinical question:

Type of study

Methodology applied

Population studied

Sample size calculation

Time available

Equipment

Funding

Instruments or questionnaire to measure the primary and secondary outcome or endpoint , and implementing the work.

The questions that need to be answered by the reviewers are the following:

1) Is there a clear, focused, and answerable study question

2) Is the study question innovative or relevant

3) Does the manuscript present an updated literature

4) Has the question already been answered in the literature

5) Does the study have the potential to advance scientific knowledge, influence clinical management and health policy, or provide some directions to future research

6) Does it matter

7) What relevant information will the study add to the literature

8) Is the paper clearly written and well organized?.

see Introduction.

see Methods

The reviewers can promote a general evaluation of the proposed research question by using the

FINER criteria.

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Sometimes it is necessary for the reviewer to suggest that the author revise the manuscript to add more information about previous experience with the new technique, learning curve of the procedure, previous training, new devices and equipment necessary to the procedure, etc. This provides valuable information about limitations and strengths when the reader decides to reproduce the study in his or her own facilities. For instance, the positive efficacy of a procedure or a drug means that they work under ideal conditions, but this does not give us an answer as to whether the drug or treatment is effective or not in the real world.

The questions to be answered by the reviewers are:

1) does the study evaluate efficacy or effectiveness of a technique or product

2) is there enough information to reproduce the study elsewhere

3) are the limitations and strengths of the study well designed

4) are the results applicable, easy to implement, and can they probably modify the evolution of diseases

5) can the reader generalize this study to his or her everyday work and their own patients

6) will the results improve patient care? [2)].

## Checklist

see Peer reviewer checklist.

## Rules

see Peer reviewer rules.

## Prompts

Act as a peer reviewer in....

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The peer review process is a crucial part of scientific research, where experts in a field review and evaluate research before it is published in academic journals. However, there have been concerns about a “peer review crisis” in recent years, particularly in regards to the reproducibility and reliability of published research.

It helps ensure that the research is accurate, reliable, and trustworthy.

Publication in peer-reviewed journals is an essential step in the scientific process.

Despite the pessimistic conclusion in Jefferson et al.'s abstract – "At present, little empirical evidence is available to support the use of editorial peer review as a mechanism to ensure the quality of biomedical research" –, the two studies included in their systematic review, which aimed to assess "the effects of peer review on study report quality," clearly demonstrate the positive effects of peer review on the methodological quality and the value of the articles reviewed [3) 4) 5)].

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However, the publication is not simply the reporting of facts arising from a straightforward analysis thereof. Authors have broad latitude when writing their reports and may be tempted to consciously or unconsciously "spin" their study findings.

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Peer review is a remarkable process that relies on the trust and quality of the peer reviewers ensuring that published research is valid, significant, and original. The reviewer can detect bias, unsatisfactory design, and ethical problems in the study that may threaten the research, and he or she provides feedback to the authors to improve the manuscript. An appropriate review takes time because many things must be considered. The structure of the critical review presented allows one to weigh all the strengths and weaknesses of a submitted study, improving the quality of the review in less time [6)].

The peer reviewer has similar competence to the producers of the work (peers).

It constitutes a form of self-regulation by qualified members of a profession within the relevant field.

Peer review methods are employed to maintain standards of quality, improve performance, and provide credibility. In academia peer review is often used to determine an academic paper's suitability for publication. In parallel with these 'common experience' definitions based on the study of peer review as a pre-constructed process, there are a few scientific understandings of peer review that do not look at peer review as pre-constructed. Hirschauer proposed that journal peer review can be understood as reciprocal accountability of judgements among peers.

Gaudet proposed that journal peer review could be understood as a social form of boundary judgement - determining what can be considered as scientific (or not) set against an overarching knowledge system, and following predecessor forms of inquisition and censorship.

Peer review can be categorized by the type of activity and by the field or profession in which the activity occurs. For example, medical peer review can refer to clinical peer review, or the peer evaluation of clinical teaching skills for both physicians and nurses, or scientific peer review of journal articles, or to a secondary round of peer review for the clinical value of articles concurrently published in medical journals.

Moreover, "medical peer review" has been used by the American Medical Association to refer not only to the process of improving quality and safety in health care organizations, but also to the process of rating clinical behavior or compliance with professional society membership standards.

Thus, the terminology has poor standardization and specificity, particularly as a database search term.

1)

Cummings SR, Browner WS, Hulley SB: Conceiving the research question, in Hulley SB, Cummings SR,

Browner WS, et al (eds): Designing Clinical Research: An Epidemiologic Approach, ed 2. Philadelphia: Lippincott Williams & Wilkins, 2001, pp 17–23

2) , 6)

Falavigna A, Blauth M, Kates SL. Critical review of a scientific manuscript: a practical guide for reviewers. J Neurosurg. 2018 Jan;128(1):312-321. doi: 10.3171/2017.5.JNS17809. Epub 2017 Oct 20. PubMed PMID: 29053077.

3)

Jefferson T, Rudin M, Brodney Folse S, Davidoff F. Editorial peer review for improving the quality of reports of biomedical studies. Cochrane Database Syst Rev. 2007;(2):MR000016. doi: 10.1002/14651858.MR000016.pub3.

4)

Goodman SN, Berlin J, Fletcher SW, Fletcher RH. Manuscript quality before and after peer review and editing at Annals of Internal Medicine. . Ann Intern Med. 1994;121(1):11–21. doi: 10.7326/0003-4819-121-1-199407010-00003.

5)

Pierie JP, Walvoort HC, Overbeke AJ. Readers' evaluation of effect of peer review and editing on quality of articles in the Nederlands Tijdschrift voor Geneeskunde. Lancet. 1996;348(9040):1480–1483. doi: 10.1016/S0140-6736(96)05016-7.