

# Reviewing a Scientific Paper

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# Reviewer

- Koomesh
- Middle East Journal of Rehabilitation and Health
- Scientific reports
- Frontiers
- BMCs

# World's famous Publishers

- Elsevier
- Wiley
- Springer-Nature
- Taylor and Francis
- LWW
- DOVE press
- Oxford press
- Cambridge
- Sage
- PLOS
- Hindawi

# Types of papers

- **Research Papers**  
significant findings of original research
- **Review Papers**
  - critical and comprehensive reviews
  - provide new insights or interpretation of a subject
  - more than a literature overview

# Initial review

- Insight into an important issue?
- A good story?
- Interesting for an international audience?
- Stimulate new, important questions?
- High probability that the paper will be read and cited by others?

# General notes

- Is the length of the paper within the **limits** of the journal?
- Is the paper **commercial** or does it market a particular product?
- Is the paper **structured** properly
- Textual overlap (similarity, plagiarism), use a software!

# Abstract-introduction-conclusion

- Is there a clear **message**?
- Having read the **introduction** – can you find out what the contribution of the paper is?
- Do the perceptions or hypotheses in the introduction match the **conclusions**?
- *After this you probably have a **first impression** if the paper is worth publishing or not.*
- Now you have to confirm this by reading more details.

# Abstract

- Combination of problem and conclusions
- Is it informative?
- Can it stand alone and cover the content?
- Accepted length?
- No figure and no references.



# Introduction

- States the objective, the problem – the research question to be addressed,
- Provides concise background: why the work was done,
- Quotes literature only with direct bearing on the problem - not a textbook,
- State a hypothesis – a suggested solution to the problem.

# Materials and methods

- ***Experiments***: are the experiments documented adequately?
- ***Model derivations***: is the process model derived properly?
- ***Results***: are they presented so that you can easily see their significance?
- Are **concentrations** shown with believable accuracy?
- ***Data analysis***: have the appropriate statistics been used?
- ***Figures***: can the figures explain the results?
- ***Tables***: are all the inputs in the tables necessary to understand the message?

# Discussion

- The discussion section makes the paper *scientific*!
- Have the results been critiqued against the literature?
- Have any similarities and discrepancies with other published data been identified and accounted for?
- Can the author **explain** and **interpret** the results?

# Conclusion

- The “take-home message” of the paper.
- Should be short and concise.
- Must be possible to derive from the results and discussion.
- **Not** a summary of the paper.
- No references.

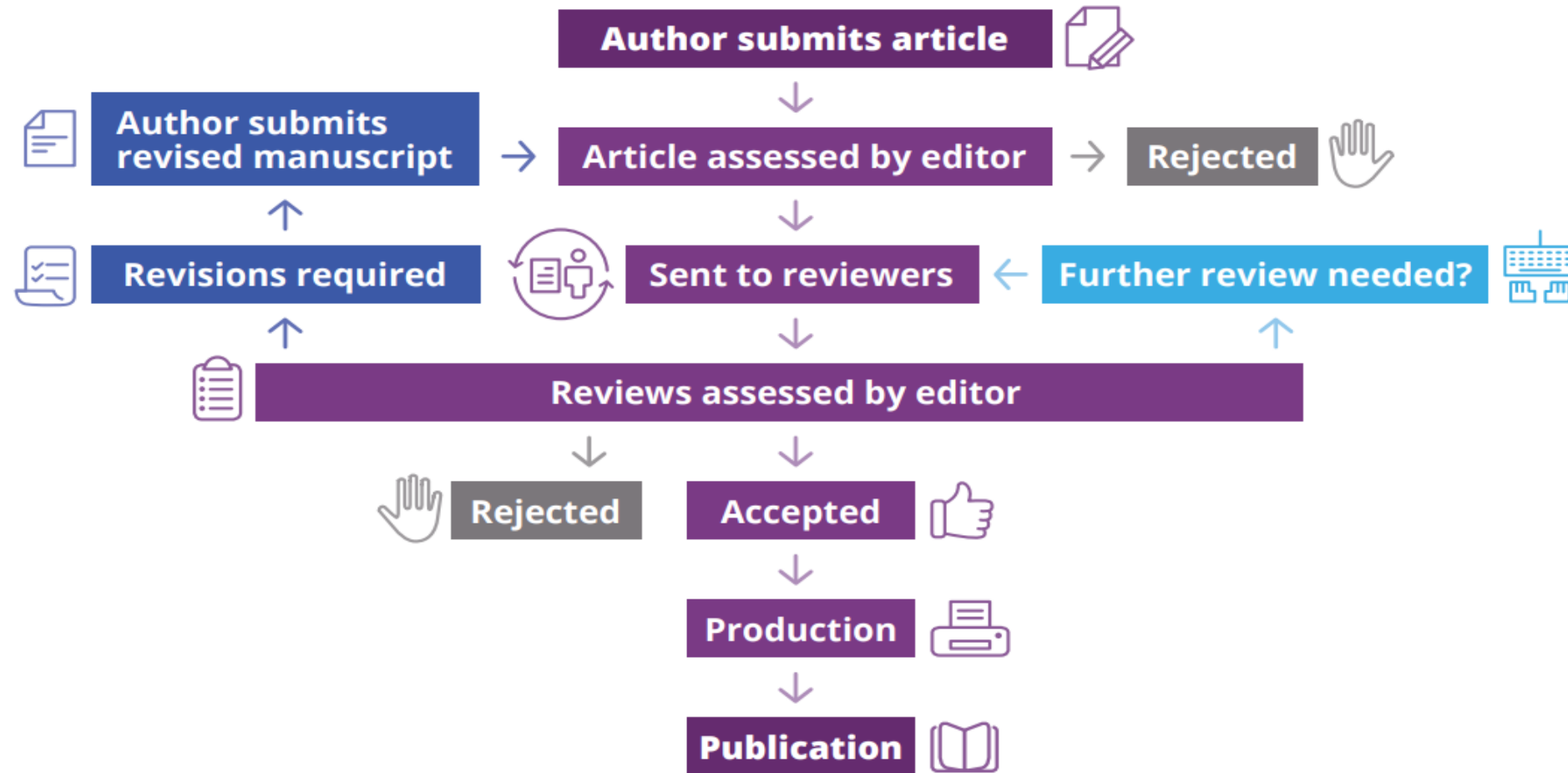
# References

- Compare the introduction with the reference list.  
Is it clearly indicated what is new in this paper?
- Are there both older and newer references?
- How many references?  
Typically 20-30 references.
- Any references that cannot be read by an English speaking reader?
- Is the author citing the original contribution or citing from a popular source?
- Make sure that the references cited in the text are included in the reference list and *vice versa*.
- Using software?

# Language

- The text does not have to be perfect English, but it has to be *clear and understandable*.
- You do not need to go through the language issues yourself.

# Peer Review Process



# Review report

- Informal structure: Overview, major comments, minor comments
- Formal structure: BMC, Frontiers,...



## Q 2 Check List

 **Reviewer 1:** Bahador Bagheri | 08 Jan 2022 | 07:07

#1

- a. Is the quality of the figures and tables satisfactory?  
– Yes
- b. Does the reference list cover the relevant literature adequately and in an unbiased manner?  
– No
- c. Are the statistical methods valid and correctly applied? (e.g. sample size, choice of test)  
– Yes
- d. Is a statistician required to evaluate this study?  
– Yes
- e. Are the methods sufficiently documented to allow replication studies?  
– Yes

### QUALITY ASSESSMENT

#### Q 3 Rigor

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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#### Q 4 Quality of the writing

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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#### Q 5 Overall quality of the content

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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#### Q 6 Interest to a general audience

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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# Your Recommendations

- **Reject** (explain reason)
- **Accept without revision** (Very unusual!  
Most papers can be improved in some way)
- **Revise** – either major or minor
  - explain the revision that is required
  - inform the editor if you would accept to review the revised paper

# Possible outcomes of peer review

- **Accept without any changes (acceptance):** The journal will publish the paper in its original form. This type of decision outcome is rare
- **Accept with minor revisions (acceptance):** The journal will publish the paper and asks the author to make small corrections. This is typically the best outcome that authors should hope for
- **Accept after major revisions (conditional acceptance):** The journal will publish the paper provided the authors make the changes suggested by the reviewers and/or editors
- **Revise and resubmit (conditional rejection):** The journal is willing to reconsider the paper in another round of decision making after the authors make major changes
- **Reject the paper (outright rejection):** The journal will not publish the paper or reconsider it even if the authors make major revisions

**Thank you very much**