

# Guidelines for Good Publication: A Brief Description of Indexing, Citation, Indexing Parameters and Peer Review Methods

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**Abstract:** *Researchers spent months and years working on their research project, sacrificing their night's sleep and, often, not going to events that they wanted to attend. Finally, the stage comes when they have to publish their research work. It is a critical stage for every researcher or author to publish their work in a good quality journal. If this step is not taken care of, it might lead to an adverse situation that might cause the author or researcher to compromise with things that they would never want to. Therefore, in this article, the necessary information has been mentioned that an author or researcher should be aware of related to the research publication. The objective of this article is to give a better idea to the researchers and authors related to a few indexing parameters and peer review methods along with their advantages and disadvantages. Proper research should be well justified, skilfully planned, appropriately designed, and ethically approved. These guidelines intend to be advisory and are expected that they will be disseminated widely.*

**Keywords:** Indexing, citation, indexing parameters, impact factor, h-index, i10-index, single-blind review, double-blind review, triple-blind review, open review

## 1. Introduction

It is widely believed that the quality of the article is directly related to the quality of the journal in which it is published (Tcvetkov, 2018). The scholarly publishing industry is vast, and there are thousands and thousands of journals for researchers to select or choose. It might seem to be a tough task, but once the author gets an idea of how to choose the best journal, it would make their work easier.

There are various indexing databases like Google Scholar, SCOPUS, Web of Sciences, DOAJ, MDPI, etc. The researchers should have a sound idea of how to choose the best-fit journal belonging to a good database. The indexing bibliometrics helps the researcher to compare the journals and identify which journal he or she should opt for. However, these parameters have their advantages and disadvantages, but it still guides the researcher to a great extent. The researcher should also have a brief idea about what is indexing, citation, and peer review methods as having knowledge related to these will make the post research or publication process easier.

## 2. Indexing

Indexing is something that points to something; it is an indicator. Indicating something means indexing, whether directly or indirectly, it can indicate any warning or information. An index is content or list showing on which page the subject or a particular topic belongs. It contains a list of issues with their respective page numbers so that it enables the reader to get into the page directly with the help of the index. It can be a menu or catalogue which gives brief or abstract information about what is available; it leads to some sort of information.

Indexing helps us to reach reality. The information in the index is represented with something else, not fact but

pointing to reality. It helps us to understand the data better as it summarizes the whole idea with the help of keywords or essential information that is mentioned at the end of something.

There are a few types of indexing-

- Author indexing
- Subject indexing
- Person indexing
- Place indexing
- Concept Indexing
- Phrases indexing

Indexing makes things easily accessible to everyone as it has a term or word wise collection. One can get into the desired page or information or can even have a summarized knowledge by looking at the index.

**Concordances-** It is an alphabetical list of the keywords (especially the important ones) present in a book, usually with citations of the passages concerned with the context displayed.

Samuel Johnson's 'A Dictionary of English Language' (1755) was the first index to the English language.

The index society in London in 1877, its aim was to create a general index of universal literature.'

William Frederick Poole, in 1848, was a student who published his own 154-pages index to periodical literature.

## 3. Citation

It is a quotation from or reference to a book, paper, or journal. It denotes an entry in references or bibliography. It shows how something is formulated, created, or came into

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existence. It supports things or matters by mentioning its references or sources, where the data has been taken from.

Legal citation is the practice of crediting and referring to authoritative documents, statutes, or other lawful authority.

References imply that an author has found a particular published theory, method, or datum useful in some way that is the reason the author has used or included the matters in his work. It is a kind of intellectual debt because the author is taking the help of other published theories in his writing.

The purpose is to have faster learning, acknowledgment, prominence of a person's subject, and interconnection. The metaphor "If I have seen further, it is by standing on the shoulders of giants" was given by Isaac Newton; it means discovering the truth by building on the previous discoveries. Therefore, it is essential to go through the published theories and to mention or cite the references which have been of use to the author.

#### 4. Indexing Parameters

The indexing Parameter is a measurable factor that measures all aspects related to the publication and reading of books, journals, articles or documents that are already included or indexed on a particular database. There are various indexing parameters that measure the publications published by multiple researchers. It helps in assessing the importance of an individual's published contribution to their research area by keeping track of their citations and articles accordingly.

Every indexing parameter has its way to measure. Here we will be discussing three different Indexing parameters along with their advantages and disadvantages.

The three indexing parameters are:

- Impact Factor
- H-Index
- i10-Index

We will be discussing each indexing parameter separately in a series:

##### 4.1 Impact Factor

The term impact factor is used commonly to denote the stature or prominence of an academic publication within a particular discipline. This information can be used by fellow researchers as one of the measures while assessing the importance of an individual's published contribution to their research area.

The impact factor is calculated for a journal, based on the following three:

1st and 2nd Year – The total number of papers published during two years.

3rd Year – The number of citations received by the papers it published over the two-year period that is 1st and 2nd year.

4th Year – The calculation is made in the fourth year after publication has received several citations.

*An example of how the impact factor is calculated:*

A) Number of Articles published during the years **2003 and 2004**- 5,011

B) In **2005** the total number of Articles which are citing the above articles published during the years 2003 and 2004 – 60,800

C) In **2006** the Impact Factor will be determined

$C = B/A$

$= 60,800/5,011$

$= 12.1333$

##### 4.1.1 Advantages of Impact Factor are as follows –

- 1) Since there is a definite formula for calculating the impact factor, it is easily understood and simplifies the calculation.
- 2) Citation patterns are definite to particular areas of research; impact factors can be a convenient tool when trying to find an unbiased measure of quality.
- 3) As the Impact factor is calculated from the number of citations received by the articles published in a titled journal during the previous two years, it will reflect the changing status of a journal within a research field, as the number of citations increases or declines.
- 4) As it only takes into account the articles published in two years and the citations received in the following year it provides the latest status of a particular publication.
- 5) It provides librarians and researchers with a tool for managing library journal collection and provides them with easy access to quality journals.

##### 4.1.2 Disadvantages of Impact Factor are as follows –

- 1) The impact factor of a particular journal is not necessarily an accurate indicator of its quality or prominence since it highly depends on the number of citations it has received.
- 2) It is not fair to judge the stature of the journal based on the citations received in one year.
- 3) Journals that are not readily available to readers will rarely achieve a higher impact factor regardless of the quality of papers it publishes.
- 4) It shows the popularity of the journal than its actual reputation.
- 5) Authors are compelled to send their documents to journals with a high impact factor; thereby, they tend to avoid domestic journals.

Therefore, from the above write-up, we can say that though the impact factor is one of the essential and convenient parameters to measure the stature of a particular journal, it also has certain disadvantages which need to be taken care.

##### 4.2 h – Index

H-index was suggested in 2005 by Jorge E. Hirsch and is also known as the Hirsch index or Hirsch number. It is one of the prominent indexing parameters. It is a number intended to represent the productivity and the impact of a particular researcher or group of researchers. Scopus, Google Scholars, and Web of Science are resources that calculate the h-index.

The h-index is calculated or studied by counting the number of published articles for which an author has been cited by other writers at least that same number of times. We have to

take maximum  $h$  such that  $h$  articles are cited at least  $h$  times each

**For instance:**

H-Index of 10

It means that the author has published at least 10 papers that have *each* been cited *at least* 10 times. If the author's 11th most cited publication were cited only 3 times, the  $h$ -index would remain at 10. If the scientist's 11th most cited publication were cited 11 or more times, the  $h$ -index would rise to 11.

**4.2.1 Advantages of the  $h$ -index are as follows –**

- 1) The  $h$ -index is considered to measure the quality and quantity of scientific output concurrently.
- 2) The  $h$ -index computes durable performance, not only single peaks.
- 3) Any document type can be included because the  $h$ -index is unchanged by adding uncited papers.
- 4) Self-citations can manipulate the  $h$ -index.
- 5) The  $h$ -index is a straightforward and understandable composite indicator that assesses the research performance of the researcher.

**4.2.2 Disadvantages of the  $h$ -index are as follows –**

- 1) The  $h$ -index put new writers or authors at a disadvantage since both publication output and recognized citation rates would be relatively low.
- 2) The number of citations received may increase even if no new paper is published.
- 3) The indicator is suited for the micro-level, but at higher levels of aggregation, there are more versatile indicators.
- 4) There is a problem with finding reference standards. Since the  $h$ -index does not take into account the ageing of citation while indicating the quality or standards of the publication.
- 5) The  $h$ -index is calculated based on all the articles and citations done in the past years without considering a definite period or saying there is no boundary set to calculate it, unlike the impact factor.

Summarizing these pros and cons, we can conclude that the  $h$ -index is undoubtedly an interesting indicator of the strength which lies in the potential application to the assessment.

The  $h$ -index is a cumulative indicator that does take neither the dynamics of publication activity nor the ageing of citation impact into account. Therefore, it can be concluded that the  $h$ -index is a useful supplementary indicator, and enrichment for the bibliometric tool-set. Still, it is certainly not suited to substitute advanced indicators which have long ago become standard in bibliometric work.

**4.3  $i_{10}$  – Index**

The  $i_{10}$ -index was created by Google Scholar in 2011 as an index to rank author impact. Naturally, it is the number of publications the researcher has written those have at least 10 citations or say it contains the number of articles that are cited at least 10 times each.

**4.3.1 Advantages of the  $i_{10}$ -index is as follows:**

- 1) It is simple to use.
- 2) It is easy to calculate.
- 3) Easily and freely accessible by using my citations feature in Google Scholar.
- 4) It is another way to help gauge the productivity of a scholar in easy, simple steps.
- 5) It is a straightforward calculation, therefore, avoids manipulation.

**4.3.2 Disadvantages of the  $i_{10}$ -index is as follows:**

- 1) It is used only in Google Scholars.
- 2) It does not necessarily indicate the stable impact status of a particular publication.
- 3) It is based on only 10 citations for a publication not taking into account how old the citations are.
- 4) The researchers or readers might prefer other bibliometrics over the  $i_{10}$ -index.
- 5) Except for Google Scholars, no other indexing agencies use the  $i_{10}$ -index which narrows down its application.

Therefore, it can be said that the  $i_{10}$ -index is a simple and straightforward indexing measure found by tallying a journal's aggregate number of published writings with at least 10 citations.

It can be concluded that these indexing parameters or bibliometrics are the research performance indicator, basically measuring the usefulness and prominence of a journal. It finds out the number of times the particular article is used or cited by a specific author if more citations have been done it means the journal is of standardized quality and is liked by most of them. It also helps the researchers to find out which journal is most preferred by other researchers around the world.

**5. Peer Review Methods**

Peer review is the process of placing an author's research under the scrutiny of experts. Peer reviews evaluate every research paper that is submitted and accepts only the most credible for publication. It allows researchers or authors to improve the quality of their documents before release, as the reviewers also give suggestions or recommendations for necessary improvement before publication.

As peer review is a vital method for research validation, there are many ways to facilitate the review process. Following are the essential types of review methods:

- Single-blind review method
- Double-blind review method
- Triple-blind review method
- Open review method

**5.1 Single-blind review**

In a single-blind peer review, reviewers' identities are kept concealed from authors. A single-blind review is the traditional kind of peer review, and it is still the type that is most common.

Example of journals following single-blind review (belonging to IOP Science)

- The Astronomical Journal
- Applied Physics Express

### 5.1.1 Advantages

It allows the reviewers to give an honest critique without any influence being exerted by the authors since the reviewer knows their name would not be visible to the author or the public.

### 5.1.2 Disadvantages

The reviewers could use the fact that they are anonymous as an opportunity and could not critically analyse the papers of authors.

## 5.2 Double-blind review

In a double-blind peer review, the identities of both the authors and reviewers are kept hidden.

Name of journals using double-blind review method (belonging to Elsevier)

- Human Resource Management Review
- Resource and Energy Economics

### 5.2.1 Advantages

As both authors and reviewers are blind, it reduces the possibility of reviewers' bias.

### 5.2.2 Disadvantages

Double-blind peer reviewing is not blind; it is kind of easy to have an educated guess of who the author is.

## 5.3 Triple-blind review

In a triple-blind review, both the reviewers and the handling editors cannot know the identity of the author during the review process. The author is also not aware of the reviewers as well as the handling editors.

Name of journals using a triple-blind review method (belonging to the Science Matters database):

- Matters
- Matters Select

### 5.3.1 Advantages

By adopting a triple-blind review method, it is made sure that the reviewers and handling editors evaluate the article solely based on its importance and independent of any bias.

### 5.3.2 Disadvantages

The triple-blind review does not eliminate the possibility of identifying authors by their work or of bias against competing for the job.

## 5.4 Open Review Method

In an open review method, the identities of authors and peer reviewers are disclosed. Moreover, reviews are sometimes published alongside the published articles.

Name of journals using open review method (belonging to MDPI database):

- Algorithms
- Administrative Sciences

### 5.4.1 Advantages

An open peer-review system enables reviewers to be more courteous and constructive since they could not remain anonymous in this method. On the other hand, the possibility of unhelpful and inappropriate comments is reduced.

### 5.4.2 Disadvantage

Open review of papers tends to lead to biases or favouring authors from English-speaking countries and prestigious academic institutions.

## 6. Conclusion

Institutions should communicate basic guidelines and standards regarding research publication to their researchers, and encourage and facilitate the faculties and departments to give more detailed publication guidelines and policies for research activities. All staff and students of research departments should be aware of the publication process and how to choose the best-suited journal.

The above write-up is general guidance for authors. The different journal adopts different peer review methods, but a journal will follow a particular review method for all its articles. All the scores of indexing parameters are also not shown in the journals. Only the impact factor may be shown or maybe the h-index or maybe both. It depends on which parameter they adopt to measure the journal.

Researchers are advised to look for guidance on practice within their discipline. They should also consult specifications or guidelines set by the funders of their research and the journals in which they wish to publish.

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