

Measuring the impact of a journal and your articles

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How do I know if a journal is good or not?

There are several ways to evaluate the quality of a journal.

- The most important criterion is the quality of the content that the journal publishes.
- Who is the editor-in-chief – is it someone you know and respect?
- Who is on the editorial board – are there people you know and respect?
- Does the journal publish regularly?
- Is the online version up-to-date and presented in a scholarly manner? (E.g. without inappropriate adverts.)
- Do your peers read the journal? Are they familiar with it? Do they publish their own research in it?
- What is the Impact Factor?

What is the Impact Factor?

The Impact Factor (IF) is a calculation of how many citations the articles in a journal receive (on average). It is calculated by Thomson Reuters as part of their commercial Web of Knowledge (WoK) database in its Journal Citation Reports (JCR). If a journal has an IF of 2, then you can assume that – on average – all the articles in the journal will be cited twice within one to two years after publication.

The calculation is as follows:

Citations in year three of all articles published in Journal X in years one and two
Divided by
The number of articles published by Journal X in years one and two

For example, if Journal X published 100 articles in 2013–14
And all the journals indexed in Web of Knowledge cited these articles 50 times
during 2015

Then the Impact Factor would be: $IF = 50/100$ **IF = 0.5**

The calculation should only be used as an indicator of the quality of a journal – it is an average, and whereas some articles will be highly cited many others will receive few – or no – citations.

The other limitation is that the calculation is only made with reference to journals that WoK indexes – it does not include all journals. Therefore it will not record citations made by non-indexed journals. (And it includes little record of citations in monographs – although this is slowly increasing.)

Why don't all journals have an IF?

Thomson Reuters does not provide an IF for humanities journals because the pattern of citation is usually so low and delayed as to be not worth reporting. It is also very selective about which journals it indexes and excludes many journals that it feels do not meet its exacting criteria.

Also note that there is an Arts and Humanities citation index which has strict inclusion criteria. Although this does not grant an IF on the journals that it indexes, to be included is extremely prestigious.

Where can I find the IF?

Journals that have an IF will normally display it on the journal website and those that are indexed in the relevant indexes will include this information on the homepage. You can only access the Journal Citation Reports if your library has a subscription to this online service.

Are there other ways of measuring the impact of my research?

There are three main indexes which provide citation metrics for journals and articles: Thomson Reuters (Journal Citation indexes), Elsevier (Scopus) and Google Scholar. They each provide a variety of citation metrics, but note that they do not each index exactly the same content, so they will not deliver identical metrics.

Elsevier provides a useful short guide to the different metrics which are measured by these indexes: <http://www.elsevier.com/editors/journal-and-article-metrics>

To discover different metrics on journals that interest you (other than the IF) you can use these (freely available) sites:

- <http://www.scimagojr.com/journalsearch.php>
- <http://www.journalmetrics.com/>

The following measures are of particular use to researchers:

h-index

Several universities use the *h*-index to rank academics. This is calculated as the number of articles (*h*) which have received at least *h* citations. For example:

If you have published fifteen articles
And they have all received at least nine citations
Then your *h*-index is 9

If you have published twenty-four articles
And they have all received at least thirty-three citations
Then your *h*-index is 24

This can be derived from citation data either in Google Scholar, Thomson Reuters or Elsevier indexes.

Google Scholar

Google provides citation information on an article-level. Full details can be found on the Google Scholar site:

<https://scholar.google.com/intl/en/scholar/citations.html#citations>

Note that the citations reported by Google Scholar will (usually) be very much higher than those reported by Thomson Reuters or Elsevier. This is because Google Scholar indexes a much larger database of content, and its metrics also pick up some duplicated content.

Altmetrics

Altmetric (www.altmetric.com) provide a service to publishers, institutions and researchers that tracks interest in articles. These include citation data (IF, Scopus, Google Scholar, etc.), but also social networking metrics. For example the number of Tweets or blogs that mention an article. These can provide useful information about the interest in an article (which may, or may not, turn into citations).

Can I trust citation metrics?

Always be careful of any metrics. They should be used as indicators, and never as absolute quality criteria, because of the methodology used to calculate them, errors within them, and the limited coverage of the indexes.

When looking at the IF, you should only compare journals in the same discipline. This is because citation behaviour differs between disciplines. An IF of 1 is considered very good in some areas, whereas in others it would be considered very poor.