Research metrics
A simple guide

How to use research metrics

FOR RESEARCHERS
Metrics can help you to choose which journal to submit your work to, and assess the ongoing impact of an individual piece of research (including your own).

FOR JOURNAL EDITORS
Metrics can help you assess your journal’s standing in the community, raise your journal’s profile, and support growth in high-quality submissions.

FOR LIBRARIANS
Metrics can help you to select journals for your institution, and analyze their usage and impact. They can also help you assess the impact of research published by those in your institution.

1. IMPACT FACTOR
The Impact Factor is the most commonly used metric to assess a journal. Different subjects have varying citation patterns, which are reflected in a journal’s calculation. Released annually based on Web of Science Journal Citation Reports®, only journals in the Science Citation Index Expanded (SCIE) and Social Sciences Citation Index (SSCI) can have an Impact Factor.

How it’s calculated:
Number of citations in one year to content published in the previous two years.
Number of articles and reviews published within the previous two years.

2. SJR
Scimago Journal Rank
The SJR aims to capture the effect of the subject field, quality, and reputation of a journal has on a citation. It looks at the prestige of a journal by considering the sources of citations to it, rather than counting all citations equally. Each citation received by a journal is assigned a weight based on the SJR of the citing journal. So, a citation from a journal with a high SJR value is worth more than a citation from a journal with a low SJR value.

How it’s calculated:
Average number of weighted citations in a given year.
Number of articles published in the previous three years.

3. CITED HALF-LIFE
Cited Half-Life measures the longevity of research. It reflects how long research continues to be referred to and cited after it has been published.

How it’s calculated:
Number of years after which 50% of the lifetime journal citations in a year have been received.

4. 5-YEAR IMPACT FACTOR
The 5-Year Impact Factor attempts to reflect the longevity of research, and is more stable year-on-year for smaller titles as there are a larger number of articles and citations included. These are useful for subject areas where it takes longer for work to be cited.

How it’s calculated:
Number of articles in one year to content published in the previous five years.
Number of articles and reviews published within the previous five years.

5. H-INDEX
The h-index attempts to measure the productivity of a researcher and the citation impact of their publications. It varies by field and depends on which data source is used to calculate the value. If you have a h-index of 10 you must have published at least 10 papers that have each been cited 10 times or more.

How it’s calculated:
Number of articles published which have received the same number of citations.

6. SNIP
Source Normalized Impact Per Paper
SNIP is published twice a year and looks at a 3-year period. It attempts to correct subject-specific characteristics so it is easier to make cross-discipline comparisons between journals. It measures citations received relative to citations expected for the subject field.

How it’s calculated:
Journal citation count per paper.
Citation potential in the field.

7. CITESCORE
Currently available for over 22,000 journals indexed in Scopus, Citescore aims to capture the optimum citation period for most subject areas. It is a ratio of citations to research published, and looks at all content published in a journal (not just articles and reviews).

How it’s calculated:
All citations recorded in Scopus in a given year to content published in the previous three years.
Number of items published in a journal within the previous three years.

8. SJR
Scimago Journal Rank
The SJR aims to capture the effect the sources of citations to a journal (not just articles and reviews). and looks at all content published in a given year to content published in the previous three years.

How it’s calculated:
Number of articles published which have received the same number of citations.

9. EIGENFACTOR
The Eigenfactor measures the influence of a journal within the relevant literature over 5 years. A citation from a highly cited journal is worth more than one that receives few citations.

How it’s calculated:
Number of citations in one year to content published in the previous five years (weighted).
Number of articles published within the previous five years.

10. H-INDEX
Cites half-life attempts to measure the productivity of a researcher and the citation impact of their publications. It varies by field and depends on which data source is used to calculate the value.

How it’s calculated:
Number of articles published which have received the same number of citations.

11. ALTMETRIC ATTENTION SCORE
Altmetric Attention Scores tracks the online shares and conversations relating to a piece of published research. Each online ‘mention’ of that research is weighted differently. So, a journal article referred to (or ‘mentioned’) in an international newspaper is given more weighting in the overall Altmetric Attention Score than someone tweeting about the same piece of research.

How it’s calculated:
Gathers data collected around research articles that isn’t usage or citation data, such as mentions on social media, in news outlets, on blogs, in policy documents or patents, and in online reference managers.