Impact Factor Presentation for HLES Faculty
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Impact Factors

- What they are

- Where they can be located

- How they are used

- Future trends

What are Impact Factors – basically a quantitative measure of Journal Quality

- Journals are still the primary way scholars disseminate research

- Scholars obviously want to publish in journals that are credible and researchers want to base subsequent research on credible journals

- To measure credibility a method was devised to quantitatively measure the the impact that articles from a particular journal have on the scientific community – In other words, are the articles from a journal influencing research

- Impact factor was first proposed by Eugene Garfield (who is a chemist, librarian, and linguist by training) in a 1955 article in the journal *Science. (I cited a 1996 article by him in the last slide)*

- How this is calculated

Impact Factor – calculating

(IF)

- calculate the frequency with which the "average article" in a journal has been cited in a given period of time.

  The impact factor for a journal using the **existing standard** is calculated based on **a three-year period**, and can be considered to be the average number of times published papers are cited up to two years after publication.

- The higher the number, the better the impact, and the more influence the journal is supposed to have in its field

  - the impact factor 2010 for a journal would be calculated as follows:

    Ratio
    A=B/C

  - A is the year being calculated (e.g., 2010)

  - B is the number of times articles published in 2008-2009 **were cited** in indexed journals during 2010

  - C is the **number of articles, reviews, proceedings or notes published in 2008-2009**

(note that the impact factor 2010 will be actually published in 2011, because it could not be calculated until all of the 2010 publications had been received. Impact factor 2011 will be published in 2012)

Example:

To find the 2010 impact factor of Journal of Sports Excellence –

In 2010 there were 250 citations to articles published in 2008 and 283 citations to articles published in 2009. The sum of these is 533

There were 183 articles published in this journal in 2008 and 200 in 2009. The sum of these is 383

The impact factor is 533 citations/383 source articles, which is 1.392

Where Impact Factors are Found

JCR – Journal Citation Reports – annual, very expensive. Not a content database (like SportDiscus, so lots of libraries that aren't research 1 inst. don't have it (PNAS is proceedings of the national academy of science

http://www.sciencegateway.org/rank/index.html are eventually reported in other places, such as science gateway

Research Articles – articles often address Ifs in fields (e.g., the article on Sports Science)

Journal Review sources – e.g., Ulrich's - again, this is for higher IF journals. Used in libraries as a journal evaluation tool

Internet – journal web sites. Journals with substantially high Ifs list them on their web pages. Authors can check IF rates and acceptance rates when considering where to publish

How are Impact Factors Used?

- Acquisition of journals by libraries (collection development and maintenance) –

- Academic evaluation for tenure – one of the ways in which faculty research is measured, is an analysis of which journals they have been published in. Ones that are high impact with a low acceptance rate are weighted more than lower impact journals.

Again, it is a measure of how much a researcher is influencing a discipline but not the only measure.

- Prestige of a journal (including acceptance rate)

Citation Searching Options

As I mentioned, Impact factors are reported in Journal Citation Reports (JCR), a resource that many libraries cannot afford. JCR is part of the Web of Knowledge, or as many of us remember it, ISI Citation Index. Because of the expense of JCR and the three year tracking policy of ThomsonReuters, other options have emerged that provide similar measures of impact on subsequent publishing.

Publish or Perish http://www.harzing.com/pop.htm
A free software provided by Dr. Anne-Wil Harzing, a Professor in International Management at the University of Melbourne. The program retrieves citations from Google Scholar and analyzes them according to quantity, number of citations, and weighted indexes.

Eigenfactor http://www.eigenfactor.org/

A free ranking system using the entire network of Google to rank importance of journals. Takes into consideration price, citation influence, discipline, and measures over a five year period.

H Index http://arxiv.org/abs/0911.3144 - Measures author output or the influence of the authors rather than the journal

R Impact – reliability based citation impact factor – uses citation data over the lifespan of the journal rather than just the recent performance

Another option is to count **Cited References**

Measure the use of a work by counting the number of citations (self citing is a hazard). **Science and Social Science Citation Indexes** are the standard . Others are:

Google Scholar http://scholar.google.com/
Results from Google Scholar searches include the number of publications that have cited a work.

Cambridge Scientific Abstracts (CSA)
Cited Reference searching is available from many of the CSA databases, including BioOne, Education, Nursing and Allied Health, Sociological Abstracts. The full list of databases is available from the following link: http://www.csa.com/help/Advanced_Search/cited_reference.html

Ebsco Host.
These databases provide a Cited Reference tab, including Sportdiscus

JSTOR
Each retrieved resource provides links identifying publications in JSTOR that have cited a work in addition to a link to Google Scholar to locate open access materials items citing the work.

PsycNet
This comprehensive database of psychological resources published by APA provides a searching tab entitled Cited References.

Science Direct

After searching an author or publication in Science Direct, click on the Cited By icon in the Article Toolbox to identify the number of times articles are cited by publications indexed in Science Direct or Scopus.

Scopus (http://www.scopus.com/home.url) and Google Scholar track citations as well. Scopus actually provides information to SJR (a free alternative journal)

More Information

- http://library.uwf.edu/tutorials/faculty_resources/promotion_resources.cfm

- http://healthlinks.washington.edu/howto/impactfactors.html