Quantitative Evaluation of Publication Impact  
A Guide

Articles in Print Journals

Peer Reviewed
Easy to determine. Varies in rigor. Not all articles in a peer reviewed journal are research articles.

Manuscript Acceptance Rate
Published acceptance rates can be hard to find and can be unreliable. Usually must contact editor.

Number of Libraries that Own the Journal
Indirectly a measure of reputation and a direct measure of the accessibility of the research.

Indexed
Inclusion in subject specific indexes is a measure of reputation. Inclusion in the large, multi-disciplinary databases used to be indicator that the journal was core to its discipline, but these large databases will index anything these days.

Ranked in Journal Citations Reports or SCImago Journal & Country Rank Database
The inclusion of a journal in these databases is a measure of reputation. A high ranking in a subject category is significant.

Quantitative Impact Factors
Can be difficult to understand. Easier to do for sciences than the humanities. Can work better in theory than in practice.

Impact Factor
A measure of the frequency with which the ‘average article’ in a journal has been cited in a given period of time. An important element to include, but only useful when compared to other journals in the discipline. http://admin.isiknowledge.com/JCR/help/h_impfact.htm

Eigenfactor scores and Article Influence Scores
Different disciplines have different standards for citation and different time scales on which citations occur. The average article in a leading cell biology journal might receive 10-30 citations within two years; the average article in leading mathematics journal would do very well to receive 2 citations over the same period. By using the whole citation network, our algorithm automatically accounts for these differences and allows better comparison across research areas. http://www.eigenfactor.org/whyeigenfactor.htm

Source Normalized Impact per Paper (SNIP)
Measures contextual citation impact by ‘normalizing’ citation values.- Takes a research field’s citation
frequency into account. Considers immediacy - how quickly a paper is likely to have an impact in a given field. Accounts for how well the field is covered by the underlying database. Calculates without use of a journal's subject classification to avoid delimitation. Counters any potential for editorial manipulation. 
http://www.info.sciverse.com/journalmetrics/snip.html

The H-Index
The h-index is based on a list of publications ranked in descending order by the Times Cited. The value of h is equal to the number of papers (N) in the list that have N or more citations. This metric is useful because it discounts the disproportionate weight of highly cited papers or papers that have not yet been cited. 
http://images.isiknowledge.com/WOK45/help/WOS/h_citationrpt.html

Publish or Perish (PoP)
Publish or Perish is a software program that retrieves and analyzes academic citations. It uses Google Scholar to obtain the raw citations, then analyzes these and presents the following statistics:
* Total number of papers
* Total number of citations
* Average number of citations per paper
* Average number of citations per author
* Average number of papers per author
* Average number of citations per year
* Hirsch’s h-index and related parameters
* Egghe’s g-index
* The contemporary h-index
* The age-weighted citation rate
* Two variations of individual h-indices
* An analysis of the number of authors per paper.
http://www.harzing.com/pop.htm

Citations to article
The most direct measure of the impact of an article. Citing frequency varies by discipline. Time consuming to perform a comprehensive search (in fact, a comprehensive search requires access to a research library). Some citations can be trivial—citing an article in a long list of a required literature review. Or self cites.

Articles in Electronic Journals

Peer Reviewed
Easy to determine. Varies in rigor. Not all articles in a peer reviewed journal are research articles.

Manuscript Acceptance Rate
Published acceptance rates can be hard to find and are unreliable. Usually must contact editor.
Indexed
Often will not be indexed in the standard print indexes, but a reputable journal should be indexed by Google Scholar and the Directory of Open Access Journals.

Quantitative Impact Factors
See above

Downloads
The editor of the journal and even possibly the author him or herself will have access to usage statistics.

Citations to Article
The most direct measure of the impact of an article. Citing frequency varies by discipline. Time consuming to perform a comprehensive search (in fact, a comprehensive search requires access to a research library). Some citations can be trivial—citing an article in a long list of a required literature review. Or self cites.

**Books or Book Chapters**

Reputation of Publisher
There is no easy way to evaluate the reputation of book publishers, but there are common perceptions as to who the first-tier publishers are.

Number of libraries that own the book
Indirectly a measure of reputation and a direct measure of the accessibility of the research.

Citations to book or chapter
The most direct measure of the impact of a book or chapter. Citing frequency varies by discipline. Time consuming to perform a comprehensive search (in fact, a comprehensive search requires access to a research library). Citation databases often don’t hit book references (partly because of the poorer coverage of the humanities versus the sciences and social sciences.) Getting easier to search within books for references to other books (which benefits the humanities).

Book Reviews
It is easy to do a fairly comprehensive search for book reviews.