Your essential guide to literature reviews

Michelle Fleetwood, PhD - Solutions Consultant
August 4, 2020
This Webinar has a related blog post. Check it out for additional information!

Blog Link
1. What is a Literature Review

2. Tools to help during the process
   • Searching
   • Evaluating
   • Analyzing
   • Writing
   • Publishing

3. Additional Resources

4. Live Demonstration
Clarivate in the Research Workflow

Web of Science
The world's largest and highest quality publisher-neutral citation index.

Essential Science Indicators
Reveals emerging science trends as well as influential individuals, institutions, papers, journals, and countries across 22 categories of research.

Journal Citation Reports
The world's most influential and trusted resource for evaluating peer-reviewed publications.

InCites Benchmarking & Analytics
Analyze institutional productivity and benchmark your output against peers worldwide.

ScholarOne
Simplified submission workflows and peer review for scholarly publishers and societies.

EndNote
A smarter way to streamline references and write collaboratively.

Kopernio
Fast, one-click access to millions of high-quality research papers.

Publons
Supporting researchers through documenting their peer-review and journal editing contributions, providing guidance and best practice for the peer-review process, as well as increasing the overall visibility of their research and its impact.

Converis
One flow to let institutions collect, manage, and report on all research activity, working seamlessly with an institutions existing systems.

Web of Science Author Connect
Reach leading researchers in the sciences, social sciences, and arts and humanities.
# Systematic vs. Literature Review

<table>
<thead>
<tr>
<th></th>
<th>Systematic Review</th>
<th>Literature Review</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
<td>High-level overview of primary research on a focused question that identifies, selects, synthesizes, and appraises all high-quality research evidence relevant to that question</td>
<td>Qualitatively summarizes evidence on a topic using informal or subjective methods to collect and interpret studies</td>
</tr>
<tr>
<td><strong>Goals</strong></td>
<td>Answers a focused clinical question</td>
<td>Provide summary or overview of topic</td>
</tr>
<tr>
<td><strong>Question</strong></td>
<td>Clearly defined and answerable clinical question</td>
<td>Can be a general topic or a specific question</td>
</tr>
<tr>
<td><strong>Components</strong></td>
<td>Pre-specified eligibility criteria, Systematic search strategy, Assessment of the validity of findings, Interpretation and presentation of results, Bibliography</td>
<td>Introduction, Methods, Discussion, Conclusion, Bibliography</td>
</tr>
<tr>
<td><strong># of Authors</strong></td>
<td>Three or more</td>
<td>One or more</td>
</tr>
<tr>
<td><strong>Timeline</strong></td>
<td>Months to years, Average eighteen months</td>
<td>Weeks to months</td>
</tr>
<tr>
<td><strong>Requirement</strong></td>
<td>Thorough knowledge of topic, Perform searches of all relevant databases, Statistical analysis resources (for meta-analysis)</td>
<td>Understanding of topic, Perform searches of one or more databases</td>
</tr>
<tr>
<td><strong>Value</strong></td>
<td>Connects practicing clinicians to high quality evidence, Supports evidence-based practice</td>
<td>Provides summary of literature on the topic</td>
</tr>
</tbody>
</table>

Source: https://guides.libraries.psu.edu/c.php?g=319063&p=5222056

Systematic Review Webinar Link
Literature reviews are a collection of the most relevant and significant publications regarding that topic in order to provide a comprehensive look at what has been said on the topic and by whom.

The basic components of a literature review include:

✓ a description of the publication
✓ a summary of the publication’s main points
✓ an evaluation of the publication’s contribution to the topic
✓ identification of critical gaps, points of disagreement, or potentially flawed methodology or theoretical approaches
✓ indicates potential directions for future research

Sources
• https://pitt.libguides.com/c.php?g=210872&p=1391698
• https://advice.writing.utoronto.ca/types-of-writing/literature-review/
• https://writingcenter.unc.edu/tips-and-tools/literature-reviews/
• https://guides.library.ucsc.edu/write-a-literature-review
• https://writing.wisc.edu/handbook/assignments/reviewofliterature/
Literature Review

Problem formulation
- clearly defining which topic or field is being examined and what its main issues are

Literature search
- finding all materials relevant to the subject being explored

Data evaluation
- determining which literature makes a significant contribution to the understanding of the topic

Analysis and interpretation
- discussing the findings and conclusions of pertinent literature

Write and publish
- produce a formatted document that can get you published in an appropriate journal to inform others of your findings

Source: https://guides.library.ucsc.edu/write-a-literature-review

- An overview of the subject, issue or theory under consideration, along with the objectives of the literature review

- Division of works under review into categories (e.g. those in support of a particular position, those against, and those offering alternative theses entirely)

- Explanation of how each work is similar to and how it varies from the others

- Conclusions as to which pieces are best considered in their argument, are most convincing of their opinions, and make the greatest contribution to the understanding and development of their area of research
Literature Search: Web of Science

Search Web of Science to track ideas across disciplines and time from over 1.7 billion cited references from over 171 million records.

With Web of Science Core Collection search the top journals, conference proceedings, and books in the sciences, social sciences, and arts and humanities to find the high quality research most relevant to your area of interest.

https://doi.org/10.1007/s11192-017-2622-5

An example of an iterative search around a subject.

Cast your net wide but not too wide.

A more complex example.

<table>
<thead>
<tr>
<th>1,674</th>
<th>TS=&quot;Cancer therapy&quot; AND TS=nanoparticle AND TS=&quot;drug delivery&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indexes=SCI-EXPANDED, SSCI, A&amp;HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3,021</th>
<th>TS=&quot;cancer therapy&quot; AND TS=nanoparticle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indexes=SCI-EXPANDED, SSCI, A&amp;HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12,810</th>
<th>TS=&quot;cancer therapy&quot; AND TS=nanopart*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indexes=SCI-EXPANDED, SSCI, A&amp;HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>70,899</th>
<th>TS=(&quot;cancer therapy&quot; OR &quot;drug delivery&quot;) AND TS=nanopart*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indexes=SCI-EXPANDED, SSCI, A&amp;HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years</td>
</tr>
</tbody>
</table>

Literature Search

Narrow the results of your search by using any of the **Refine Results** options:

- Web of Science Categories (254 fields of research)
- Document Types (article, review, book, etc.)
- Publication Years
- Organization-Enhanced (Unified Organizations)
- Source Titles (journal, conference name, etc.)
- Funding Agencies
- Open Access (including type of Open Access)
- And more!

You can then also choose how to **Sort** your results by newest, most cited, usage count, relevance, etc.
Explore the Citation Network | Backward & Forward Citations

- **Cited References** – the research that a paper cites
- **Times Cited** – more recently published papers that cite the paper
- **Related Records** – papers which share at least one cited reference in common with the paper. If they share citations, they’re likely discussing similar topics.

It is particularly useful:

- Where keywords in the topic are not easy to define
- Where older research needs to be traced
- When you need to see where a research trend leads
Data Evaluation

Group and rank records in a results set by extracting data values from a variety of fields. Find the most prevalent authors in a field of study or generate a list of institutions ranked by record count based on your search query.

The Citation Report provides aggregate citation statistics for a set of search results.
Data Evaluation

Highly Cited and Hot Paper indicators put citation counts into context. They take into account the field of research, year of publication and document type, comparing ‘like with like’. This information comes from our Essential Science Indicators.

Citations take time to accrue, so they may not be the best indicators of influence for recent publications. For this reason we provide Usage Counts. Every time a Web of Science user clicks a full text link or exports a record, the record’s Usage Count is incremented. This provides an indication of interest.
Data Evaluation

Viewing the Full Text to understand content

To fully understand any publication you need to read it. Web of Science has several built-in routes to access Full Text. In addition you could add Kopernio to your browser to leverage subscription services as well as Open Access sources.

Open Access Status

Some reviews include an evaluation of Open Access, others have a requirement to either include or exclude Open Access publications. Web of Science has Open Access version as a filter, so these types of evaluation can be carried out.
Managing your Results

Saving Searches & Creating Alerts (to keep up to date)

**Search Alerts** - save a search and establish a daily, weekly or monthly email notification when new publications are added that match. Searches can be re-run, which means results are repeatable. You can also send your search methods to other Web of Science users.

In addition, there are two other types of Alerts:

**Citation Alerts** - have a favorite or important article you want to track? We'll notify you when it receives new citations.

**Table of Contents Alerts (Journal Alerts)** - subscribers to our Current Contents Connect database can set up TOC alerts for their favorite journals all in one place.

Recent updates to Alerting in Web of Science

- **All Database Alerting**: Set one alert across all collections in your Web of Science subscription.
- **One Click Access**: Go directly to the Web of Science platform for ALL the records returned in your alert.
- Alerts are delivered directly to your email (or multiple email addresses, suitable for viewing on your mobile device).
Managing your Results

The Marked List page stores records selected from your search results. After marking records, you can save your Marked List and return to it later. *Save up to 50 Marked Lists with up to 50,000 records per list. In order to save, you must be logged into your Web of Science personal profile.*

Use the Marked List to:

- **Store your search results** - it’s not always possible to finish your search in one session. Marking records for your next visit to Web of Science helps you pick up where you left off.
- **Group articles together you want to analyze** - gather the perfect set of publications, then use Analyze to understand trends across them, or use Citation Report to reveal the articles that cite your selections.
- **Create a custom set of items to export**. There are lots of export options - send to EndNote for later use in writing a paper, print, email or even export to InCites Benchmarking & Analytics for detailed citation analysis.
Managing your Results

Exporting your Results

The relevant results can be exported to other applications for further analysis or to cite in your review.

Common options are to export to excel for analysis and to EndNote (or another reference management system) for citing. You can choose how much metadata is exported by selecting an option from the list.
Analysis and Interpretation

FIND FULL TEXT find and attach PDFs to your references.

SYNC YOUR LIBRARY across desktop, online, and iPad®.

SHARE YOUR LIBRARY OR GROUPS and collaborate with other EndNote users.

ORGANIZE YOUR REFERENCES
Create groups and drag and drop your references into them or create automatic smart groups and let EndNote take care of this for you.

SEARCH EASILY Access thousands of online resources within EndNote.

VIEW AND ANNOTATE YOUR PDFS
Add sticky notes to your PDFs and search for them later. Use the built-in email functionality to quickly share a reference and its file attachments with others.
Useful questions at this stage include:

- What is the balance between description and comment?
- Have I missed out any important dimension of the argument, or literature?
- Have I supported the development of each step in my argument effectively?
- Is the material presented in the most effective order?
- Are there places where the reader is left with unanswered questions?
- Is every element of my research question supported by the preceding material?
- Have I explained to the reader the relevance of each piece of evidence?
- Is there any material that is interesting, but which does not contribute to the development of the argument?
- Have I explained adequately the justification for this research approach/topic/question?
- Are my references up to date?
- How effective is my linking of all the elements?
Writing the literature review

**FIND AND SELECT CITATIONS** and insert them into your manuscript.

**EDIT CITATIONS** to add information such as a page number or remove a reference from a group of citations.

**REFORMAT YOUR ENTIRE PAPER** and bibliography with one click.

Using EndNote’s *Cite While You Write*, you can instantly insert references and format citations and bibliographies while writing your review in Microsoft Word.

7,000+ styles are available, plus you can create your own.

Collaborate with others by sharing your library.

---

FIND AND SELECT CITATIONS and insert them into your manuscript.

EDIT CITATIONS to add information such as a page number or remove a reference from a group of citations.

REFORMAT YOUR ENTIRE PAPER and bibliography with one click.

---

**Accounts Chemical Res**

**Academic Medicine**

---

7,000+ styles are available, plus you can create your own.

Collaborate with others by sharing your library.

---

FIND AND SELECT CITATIONS and insert them into your manuscript.

EDIT CITATIONS to add information such as a page number or remove a reference from a group of citations.

REFORMAT YOUR ENTIRE PAPER and bibliography with one click.

---

7,000+ styles are available, plus you can create your own.

Collaborate with others by sharing your library.

---

7,000+ styles are available, plus you can create your own.

Collaborate with others by sharing your library.
EndNote returns a list of possible journal matches, based on title, abstract and references.

Manuscript Matcher provides the following information for the resulting journals:

- Match Score
- JCR Impact Factor
- Journal title
- JCR category
- Rank in Category
- Quartile in Category
- Link to journal’s website
- Links to publish

Compare your options and start the submission process.
Publishing your Literature Review

Use Journal Citation Reports to compare journals you might publish in.

Journal Citation Reports (JCR) provides detailed journal metrics in the Web of Science Core Collection.

Use these metrics to make an informed decision on which journal to submit your manuscript.

% Articles in Citable Items: If this is 0% the journal is focused on reviews, if it is 100% they do not publish reviews.

JCR 2020 Now Available (link)
Publishing your Literature Review

The Master Journal List provides plenty of useful information too.

The Master Journal List provides detailed information on journals in the Web of Science.

Useful information includes Open Access status, including APC fees.

There is also valuable information on a journal’s review process, like whether they operate ‘blind’ or ‘double blind’ reviews.

It also provides the average time from submission to publication.

Master Journal List
Additional Resources

Web of Science Group Learning
Get all the support and training you need to make the most of your Web of Science Group products

Videos
Self-Guided Learning
Live Training
LibGuides

Training Portal
Thank you

Michelle Fleetwood
Michelle.Fleetwood@clarivate.com
www.clarivate.com