Conducting and Writing a Literature Review

What is a Literature Review?

Literature reviews can be incorporated into larger research papers in order to provide background or contextual information on new research that is being conducted. They can also stand alone as a scholarly article, in which case the purpose is to synthesize and compare existing research on a topic to provide a greater understanding of the overall topic. In both cases, the literature review should be a discussion of previous research on a topic, not just a list of articles.

A literature review is:
- A synthesis or overview of the research on a particular topic
- A critical analysis of the existing literature
- A means to identify gaps in the existing research or areas for further study

A literature review is not:
- A list of articles
- An annotated bibliography

Steps in the Literature Review Process

1. Define your problem or research question.
2. Search for articles on your topic.
3. Read articles.
4. If necessary, refine your problem or research question and / or repeat steps 2 and 3.
5. Evaluate and organize your findings. Identify gaps in the research.
6. Synthesize what you have found in a way that presents the current state of research on your topic, including various perspectives, findings, and gaps.

Finding the Literature

Once you’ve chosen and defined a topic, use the library databases (such as Scopus or Web of Science), Google Scholar or PubMed to find existing research in that area. Make sure that your article search is thorough. It’s important in a literature review to discuss the most influential and relevant articles that have been written on your topic. Use the ‘Literature Review – Searching for Articles’ tip sheet to help you conduct a thorough search.

In some cases, there might be a large amount of research on a topic. If you are finding too many articles that seem relevant, you may have to narrow your topic – focus on one particular aspect or part of your topic. In other cases, you may have difficulty finding enough articles to write your review. If that happens, you may have to broaden your topic.

Example

**Topic:** What role do school vending machines play in childhood obesity?

If you find too many articles, you could narrow your search to focus on middle schools or sugar-sweetened drinks only. If you are not finding enough articles, you might broaden your search to include all food services (i.e. cafeterias, vending machines, etc.) in schools or include other locations (community centres, recreation facilities, etc.) where vending machines are available to children.

Don’t expect to find all of your articles at once. As you read through the research, you will likely come across aspects of your topic that you hadn’t thought of previously. You can then go back to the databases and modify your original search to include those aspects.
Analyzing Articles
Once you’ve found relevant articles, you can use them to:

- Find other relevant articles
- Identify gaps in the literature
- Contribute to your discussion of the topic

Find other relevant articles
Research is not generally meant to stand alone. Rather, it builds upon prior research and sets the stage for further research. Most articles that you find will contain a literature review section. Reading the literature review section and using the reference list will help you track down additional articles that are relevant to your topic. As you read through several literature reviews, you will notice that some articles are referenced again and again. This is a clue that these articles have been particularly influential to researchers of your topic.

Identify gaps
In many cases, gaps in the research will be mentioned explicitly in the articles that you find. When you are reading your articles, pay attention to instances in which the researcher notes existing gaps in the literature. These can often be found in the Discussion, Further Research, Limitations, or Conclusion sections of articles.

If you’ve conducted a thorough search of the databases and haven’t found any articles on one or more aspects of your topic, this may also be an indication that there is a gap in the research.

Contribute to your discussion
As you’re reading, you may find that the body of literature focuses on a few specific themes or aspects of your topic. Grouping the literature based on themes is a great way to organize your literature review in order to develop a thorough discussion of each aspect and to create a logical flow to your review.

Read as many articles as you can and become familiar with your topic before you begin writing. You’ll want to know which aspects of your topic you want to discuss and ensure that you have articles related to each aspect.

For each article, try to focus on what was studied, the findings and conclusions of the study, and how it fits into the larger body of research (analyse, don’t summarise). Once you have gathered this information for each article, you can begin to write a coherent literature review on the topic.

Example of a literature review
Here is an example of a literature review on the use of complementary and alternative medicine (CAM) for headache and migraine. Adams, Barbery, Chi-Wai Lui (2012) write that articles on this topic can be organized into four themes (p. 461). Here is a quick summary of the outline of their paper.

| Introduction to the issue: Why it is important to explore the use of CAM treatments? |
| Methods: This section explains how the search was conducted. This section is always included when a review article is a systematic review, but is not typically found in a standard review article. |
| What do studies on this issue say? Four themes are talked about in the research articles. |
| - The prevalence of CAM use – Examples of articles that talked about this issue |
| - CAM user profile and predictors of CAM use – Examples of articles that talked about this issue |
| - Motivations for and perceptions of CAM use – Examples of articles that talked about this issue |
| - Referral to and disclosure of CAM use– Examples of articles that talked about this issue |
| Discussion of gaps in literature and areas for future study and implications for healthcare providers |

Need help?
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