

Writing a Literature Review

Literature reviews are surveys of existing scholarly work on a specific topic or question. They are common in all fields of study, ranging from literary studies to environmental science. Literature reviews can be short summaries used at the beginning of articles to justify the research conducted, or they may be article-length essays that discuss the research approaches and findings of scholars who have explored a topic over a certain time period. While this handout focuses on the longer version, it can still help you plan the shorter version.

Keep in mind that a literature review is not just a summary of sources.

It is a synthesis of ideas, putting sources into conversation with each other in order to identify patterns in the existing scholarship, point to gaps that need to be addressed in future research, and/or come to new conclusions.

Choosing a Topic

As with any assignment, having a clearly defined topic creates the foundation for a solid paper.

Suggestions for Choosing a Topic

- **Read the assignment prompt carefully.** Because literature reviews require the reading and discussion of many outside sources, they can easily become unwieldy monsters, requiring more time and pages than you are able to devote to them. Your professor may include topic limitations—timeframe, number of sources, types of publications, topic suggestions—on the assignment sheet to help you avoid becoming overwhelmed.
- **Consider your own experiences, interests, and concerns.** Choosing a topic you care about ensures that you will be more inclined to do the work needed to fully develop your review. Start by asking yourself a few questions. What topics in this field of study have really caught my attention this semester? What questions do I still have about these topics? How do my hobbies, experiences, and worries about the world connect to this field? Create a list and make notes about each.
- **Do research.** Once you have a few ideas, begin collecting books and articles about your potential topics. If you have difficulty finding sources, there might not have been enough research done for you to write an effective literature review. If you find too many sources, you may have to narrow your topic to a specific time period, publication, author/researcher, or aspect of the topic to avoid an unwieldy project.
- **Narrow your focus.** As mentioned above, if a topic proves to be too extensive, you can narrow your focus to research written during a specific timeframe (ex: the last twenty years), major publications in the field (ex: articles found in the *Journal of Neurobiology*), a specific aspect of the topic (ex: research on telepathy), or the work of one researcher (ex: Professor X who has written over twenty articles on the brain).

Collecting Sources

Literature reviews require you to find, read, understand, and synthesize information from many sources. Most professors ask for at least ten sources; however, it is not unheard of for published literature reviews to include dozens, even hundreds, of books and articles. Because your review will be limited by time and page count, you need to make sure that you collect the most relevant sources concerning your topic.

Suggestions for Collecting Sources

- **Phrase the topic as a question or series of questions.** Rather than searching for everything that can be found on the topic, write down specific questions you want your literature review to answer. This will help you come up with a list of key words you can type into a database.

Example:

- **Topic:** Human prosthetics
 - **Questions:** What research has been done to determine the best metals for use in human prosthetics? How can prosthetics enhance human abilities? What research has been done on how human tissue heals around surgically implanted prosthetics?
 - **Key Words:** prosthetics, metals, enhancement, surgical implants, healing
- **Limit your search.** Starting broad can give you an idea of what research is out there, but it can also pull up a lot of sources that do not quite meet your needs. Once you have an idea of how large the topic is, what conversations are being had, when they occurred, and what publications are the most interested in it, you can limit your search to focus on specific timeframes and aspects of the topic, helping you find the most relevant sources. Use the **Advanced Search** options in academic databases to set your search parameters. If you get too few results, you can always loosen the parameters.
 - **Check the References.** As you find sources that fit your topic/question, look over their reference and works cited pages for other potential sources. If the author is citing them, then it is likely these sources cover similar topics/questions.
 - **Evaluate what you find.** Scan the abstract, introduction, and discussion sections to ensure a source addresses your topic and answers your questions. **Just because a source shows up on the first page of results does not mean it will be useful to you.** Then, use the handout **Evaluating Sources: The CRAAP Test** to check the source for reliability.
 - **Save and organize your sources.** You should save all your sources in a single location that is easy to access. Whether that means printing out a stack of articles or saving them to your computer or a thumb drive is up to you, but there is nothing worse than knowing you had “that one article” and not being able to find it again. It is also advisable to save them in a format that can be marked on, so you can make notes about the major arguments, findings, and patterns you see. Organize your sources based on how they address the topic or by date—oldest to newest for the humanities; newest to oldest for the sciences.

Coding Information

Coding is the process of carefully reading, analyzing, and categorizing your sources based on patterns in the research.

Coding Schemes

- **Deductive Coding:** Deductive coding uses a predetermined coding scheme. You have specific questions you want to answer or aspects of the topic you want to address, so you only focus on how those are discussed in the literature.
- **Inductive Coding:** Inductive coding involves building the coding scheme after you have reviewed the literature and identified patterns in the conversations.

Possible Patterns to Code

You may code for one or more of the following patterns:

- **Major areas of focus:** What are the major conversations that keep popping up?
- **Major areas of contention:** Are there aspects of the topic that researchers disagree about?
- **Research methods:** How are researchers collecting data?
- **Findings:** Does the data collected by researchers doing similar studies agree?
- **Discussions:** What conclusions do researchers come to based on their data?
- **Suggestions:** What advice do researchers offer based on their data?

- **Time periods:** Has research on this topic changed over time?

Organizing the Literature Review

Clear organization of the literature review allows the reader to understand what patterns you identified and why they are important. The outline provided below is just a suggestion. **Check with your professor to make sure it conforms to the requirements of their assignment.**

Introduction

The introduction provides the reader with the context of the literature review and may contain all or some of the following information:

- **Background Information:** This section acquaints the reader with basic information about the topic, giving them reference points for the literature review.
- **Importance of the Topic:** Once background information has been established, explain why this topic and research into it is of particular interest to the academic community and/or society-at-large.
- **Explanation of Purpose:** Tell the reader the goal of the literature review. Some of the reasons for writing a literature review include answering a specific question, pointing to gaps where more research needs to be done, and providing a history of the topic.
- **Explanation of Literature Review Limitations:** Outline the limits of your literature review. This could include the number of sources, the journals examined, the aspects of the topic, the publication dates of sources, etc.
- **Brief Description of Patterns Identified:** Provide a brief discussion of the major patterns that emerged in the existing literature. Think of this as the thesis statement for the literature review.

Patterns in the Literature

Discussion of the patterns that you coded for should make up the body of the literature review. Each paragraph should include a transition, a topic sentence, a synthesis of the conversations in the literature, and a wrap-up.

- **Transition:** A transition shows your reader how the new paragraph connects to the paragraph that came before it and smooths the flow from one idea to the other. The transition may be its own sentence or a part of the topic sentence.
- **Topic Sentence:** The topic sentence identifies the pattern being discussed in the paragraph. All evidence and examples should link directly back to this sentence.
- **Synthesis:** The purpose of a literature review is to synthesize, not summarize. To synthesize, you must reveal how the existing literature forms a conversation about the topic. Avoid talking about sources individually, creating a list. Instead, show the agreements and disagreements between sources and explain why those agreements/disagreements exist. **You must use multiple sources in each paragraph to create a conversation.**

Example: According to Smith (2015) and Jones (2018), the best metal for prosthetics is titanium because of its durability. However, in his study, Williams (2019) showed that titanium is mildly toxic and can lead to bone loss in the areas surrounding the prosthetic.

- **Wrap-Up:** The wrap-up brings the paragraph to a close. Briefly remind the reader of the original pattern demonstrated in the paragraph.

Discussion Based on the Purpose of the Literature Review

Depending on the purpose, your literature review may also include one of the following sections:

- **Discussion of Gaps:** A discussion of gaps in the research could identify research methods that have not been tried, variables that have not been considered, aspects of the topic that have not been addressed—basically anything that the existing literature does not do, cover, or agree on—and that you believe would benefit study of the topic. This information should be included in literature reviews that attempt to explain the reasons for your own primary research or that look to the future of research in the field.
- **New Conclusions:** A discussion of new conclusions uses the patterns identified by synthesizing so many different sources to make a claim that may not have been possible before.

Conclusion

Discussion of gaps or new conclusions can sometimes act as the conclusion; however, it may be a good idea to more clearly close out your review.

- **Restate the Purpose:** Remind the reader why you collected and analyzed the literature.
- **Summarize the Patterns:** Remind them of the major patterns that you identified.
- **Answer the Question “So What?”:** Remind them why this topic is important to the field.