



The **Literature Review** is one of the most important and poorly understood components of a document. Here, we try to briefly explain the role and structure of the literature review, and present some strategies for conducting and writing one. (There are many other relevant resources on this site: *see in particular Online Handbook / Accurate Documentation* for information on conducting/understanding research, proper documentation guidelines, and using and acknowledging other people's ideas in your writing).

**1. The Role of the Literature Review:** The function of a scientific literature review is primarily **to collect and examine** the state of current knowledge in a field by examining the work of scholars and researchers whose work has been recognized as valuable. Ultimately, a well researched and written literature review accomplishes three goals. It:

1. Establishes context for your work by showing what has been done in the area
2. Exposes the gap in current knowledge
3. Shows your supervisors that you have done your research [1]

The literature review might be considered a more detailed, elaborated and well-supported version of the introduction. In the literature review, the gap is developed in significantly greater detail and supported by references to research (*See also Online Handbook / Components of Documents / Introductions*).

**2. Structure of the Literature Review:** There are two options for organizing your literature review. You can either organize **A) by source** or **B) by topic**. Both are acceptable, but rarely is organization by source a better strategy than organizing by topic.

- A. Organization by source allows you to develop how one researcher or group of researchers has, in one book or paper, contributed to the field.
- B. Organization by topic, however, allows you to cover all of the contributions, by different researchers to one topic or key area of knowledge.

Option B allows for more coherence and is a more effective way of integrating contributions by different people or research groups. Option A is most often used when several pivotal studies with distinct contributions form the foundation of the literature review and deserve their own dedicated sections. Option B, however, is more challenging to write because it depends on your ability to synthesize information effectively. Sometimes, a combined approach is appropriate: one paper may contribute significantly to one area, although other papers might also add to knowledge in that area.

(*See Online Handbook / Accurate Documentation*).

**3. Strategies for Writing a Literature Review:** After finding / reading the relevant articles, proceed by: 1) Organizing, 2) Summarizing, and then 3) Evaluating [1].

**1) Organizing:** The first step is to develop a framework for the review: this can be done by identifying the key articles or the key areas of knowledge (depending on the organizational structure chosen), and associating papers with specific areas of knowledge. This set of topics or papers should form the sections of your literature review; however, you'll need to organize these topics logically, and develop transitions between the sections.

**2) Summarizing:** The second step involves identifying each article's contribution to the area

of knowledge. You may be summarizing an entire article, or just including a brief reference to the article. When summarizing an article, ask the following questions:

- What is the author's purpose?
- What are the writer's assumptions?
- What are the author's main claims (conclusions)? How are they supported; how have they been qualified [1]?

This second step should leave you with a clear idea of what the author is saying.

**3) Evaluating:** In the final step, you need to assess the work done in the key area of knowledge or by the pivotal paper, in order to establish:

1. How previous work has left a gap, because of either inadequate assumptions or inconclusive findings;
2. How previous research will be applied in a new context; or
3. How general disagreement or different views on the subject create a need for a solution [1]

In **evaluating each article**, consider the following questions:

- How strong are the basic components of the study design? Could the problem have been approached more effectively from another perspective or with different assumptions?
- Are the paper's conclusions well warranted by evidence from research? Is the evidence from the research conclusive? Or are there limitations to the research?
- How does this paper contribute to our understanding of the problem/issue?
- How does the paper relate to your research [1]?

In **evaluating several papers** on a specific topic, ask these questions:

- What are the significant points of agreement between articles?
- Where the research disagrees, is one researcher more conclusive than another?
- How can you fit the articles together to build a logical argument that furthers your purpose [1]?

[1] Irish, R., Tiede, K., and Weiss, P. *Communication Course Notes*. Engineering Communication Program, Faculty of Applied Science and Engineering, University of Toronto. 2004.

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