

Writing Literature Review

Using Secondary Sources and Avoiding Plagiarism

Which of the following can be regarded as a piece of literature?

- ▶ Conference proceedings
 - ▶ Statistical handbooks
 - ▶ Government reports and reports from other organizations
 - ▶ Theses/Dissertations/Project reports
 - ▶ Journal articles
 - ▶ Electronic databases/Websites
 - ▶ Empirical studies
 - ▶ Websites
 - ▶ Blogs
 - ▶ Magazines
- Whether presenting a report, a proposal, an article in a professional magazine or journal, or even a presentation at a professional conference.
 - Should include a review of the published research, often referred to as a literature review

Characteristics of a Literature Review

- ▶ Relevant and Focused
- ▶ Order/Organization
- ▶ Updated
- ▶ Critical
- ▶ Brought to a close
- ▶ Research gap should arise

Structure

- ▶ For your argument about the literature to come through clearly, the review must have a structure.
- ▶ It must make connections between the works you have read, and between them and your own study.
- ▶ There is no single “correct” structure, since every review is shaped by the nature of the field being reviewed and the particular needs of the study the review is supporting.
- ▶ Some common organizing patterns are (they may be used in combination):
 - ▶ Themes or concepts
 - ▶ Chronological
 - ▶ Methodological
 - ▶ Trend
 - ▶ Other

Analysis and Synthesis

- ▶ Analysis involves systematically breaking down the relevant literature into its constituent parts
- ▶ Synthesis is the act of making connections between those parts identified in the analysis
- ▶ In a literature review, you will notice the synergy between analysis and synthesis as you zoom-in to closely analyse an individual source, then zoom-out to consider it in relation to the broader field.

Steps in Synthesizing

1. Read the relevant material
2. Make brief notes using key points/keywords - to compare and contrast relevant info.
3. Identify common ideas – main idea
4. Cite (reference) all the authors you have used.
 - ☐ Main idea
 - ☐ 2-3 sources
 - ☐ Transitions
 - ☐ Opinion

Structure

Usually there is a move from general overview to specific studies within the sections of a literature review.

▶ Example

The general text for the area of information retrieval is more than 10 years old (Salton & McGill, 1983). Yet, the methods of information retrieval mentioned are still relevant today. Van Rijsbergen (1979) describes probabilistic retrieval, which is the model that the Bayesian network implementation of information retrieval system is based on. Of the implementations of such systems, Turtle's (1990) implementation appears to be the most well-known and demonstrates superior performance compared to Boolean and vector space methods. Ghazfan et al. (1994) have produced a different implementation which has not been tested in an actual information retrieval system. It is the purpose of this investigation to obtain performance results in an actual information retrieval system.

Comments: The following example moves from distant to close (in terms of relevance and applicability) as well as chronologically. It moves from 1) the broader historical context to 2) the implementation which demonstrates superior performance, and then to 3) the implementation which provides the model to be tested for the study.

Sample

Identity is the third element involved in the situation of the international/NESB research student, and particularly impinges on the effectiveness of any kind of support offered. Cadman (1997, p. 3) uses this term to refer to the sense of self – ‘as a whole person’ – that international postgraduate students bring to their writing of argumentative texts, and which can affect language performance. This sense of self is closely bound up with language; in her study of immigrant women in Canada, Peirce (1995) argued that language both constitutes and is constituted by social identity. For international postgraduate students, identity, knowledge and language are very closely connected, since what is at stake is often the student’s identity as a knowledgeable person, a professional and a competent speaker/writer of English.

Comments: 1- a topic sentence

2- how the writer sees the connection between the two pieces of research cited

3- the writer clear the implications of the cited research for the topic of the article.

Sample

► A study by McLellan et al. (2014) showed that all three colours are perceived by knockout mice with the human vision gene. But another study, with 25 mice, did not confirm this finding (Smith, 2012). Only two colours were consistently perceived by all knockout mice through the standard dichromatic S and M cone pigments (Myers 2015). According to Hennessy, the reason why only two colours are perceived by knockout mice is that the human vision gene does not result in the formation of L-cones (Hennessy, 2005). Trichromatic vision was, however, achieved by McLellan (2015). This new study introduced a new method of genetic modification (McLellan, 2015).

► Questions:

► The paragraph is about?

► Does it present a clear topic sentence?

► Does it present connection between one sentence and the next?

► Does it present a storyline?

Comments: colour perception in mice

There is no topic sentence

a disjointed list of pieces of research. Furthermore, the connection that is implied between the first and second sentences is logically impossible; a 2012 study could not have confirmed a 2014 finding.

No clear storyline

Sample

Although mice are naturally dichromatic, recent research has shown that their brains are able to process trichromatic vision as well (McLellan, 2015). This ability was tested by implanting mice with the human vision gene, which results in the formation of L-cones, in addition to native S and M cones. First attempts, based on flawed methods, were unsuccessful (Hennessy, 2005; Smith, 2012). However, a new method developed by George McLellan and his lab achieved an effective genetic implantation (McLellan et al, 2014; McLellan 2015).

Questions:

The paragraph is about?

Does it present a clear topic sentence?

Does it present connection between one sentence and the next?

Comments: It is focused on a particular mechanism of colour perception

The first sentence, although it is still citing research, establishes the topic of the paragraph

A narrative; it tells the story of a progression from unsuccessful to successful attempts to achieve the result signalled in the topic sentence, which in turn is the main point of the story.

The narrative framework ("this ability was tested"... "first attempts"... "a new method"...) creates a clear connection between the sentences.

Ethical Considerations

- ▶ Write Literature by paraphrasing the content from original source.
- ▶ Acknowledge the source by citing it in your literature review.
- ▶ Use IEEE format for citation and references.
- ▶ As shown by Brown [4], [5]; as mentioned earlier [2], [4]–[7], [9]; as presented by Wood et al. [7]
- ▶ For further details read <https://pitt.libguides.com/citationhelp/ieee>

Documenting Sources

- ▶ However, whenever you are using material that has been published in a book, periodical, or on another organization's Website, you should cite your sources.
- ▶ With the exception of common knowledge, you should cite sources for all borrowed information used in your final document, including quotations, paraphrases, and summaries.

Common knowledge is information generally available from basic sources in the field. In the case of Tanya's research project, common knowledge is a definition of hybrid electric vehicles. When you are uncertain whether a piece of borrowed information is common knowledge, go ahead and cite the source.

Why Document Sources?

Following are three main reasons for documenting sources thoroughly and accurately:

1. Courtesy: You owe readers the courtesy of citing sources where they can seek additional information on the subject. Sources should be given for quotations, paraphrases, and summaries.
2. Ethics: You have an ethical obligation to show your reader where your ideas stop and those of another person begin; otherwise, you are parading the ideas of others as your own.
3. Law: You have a legal obligation to acknowledge information borrowed from a copyrighted source. In fact, you should seek written permission for the use of borrowed information that is copyrighted when you plan to publish your document or when you are using your document to bring in profit to your firm (as in a proposal or report). If you need more specific information about copyright laws or about the legalities of documentation, see a research librarian.

Documentation Styles

- ▶ Documentation refers to the mechanical system you use to cite sources from which you borrow information.
- ▶ There are many style manuals for documenting research that can vary in different organizations and fields
- ▶ Style manuals guide the writer through the editorial rules governing everything from use of headers and pagination and graphic and text layout to managing data display and, of course, the rules for documenting sources.
- ▶ We will focus briefly on rules of IEEE style manual for citing works.

A. Citing References

- ▶ References in Text: References need not be cited in the text.
- ▶ When they are, they appear on the line, in square brackets, inside the punctuation.
- ▶ Grammatically, they may be treated as if they were footnote numbers, e.g.,
- ▶ as shown by Brown [4], [5]; as mentioned earlier [2], [4]–[7], [9]; Smith [4] and Brown and Jones [5]; Wood et al. [7]

NOTE: Use et al. when three or more names are given.

- ▶ or as nouns: as demonstrated in [3]; according to [4] and [6]–[9]

B. Reference List

► Books

Basic Format:

- [1] J. K. Author, "Title of chapter in the book," in Title of His Published Book, xth ed. City of Publisher, Country if not USA: Abbrev. of Publisher, year, ch. x, sec. x, pp. xxx-xxx.

Example:

- [2] L. Stein, "Random patterns," in Computers and You, J. S. Brake, Ed. New York: Wiley, 1994, pp. 55-70.

► Journal Articles

Basic Format:

- [1] J. K. Au thor. (year, month). Title. Journal [Type of medium]. volume(issue), paging if given. Available: site/path/file

Example:

- [2] R. J. Vidmar. (1992, Aug.) On the use of atm ospheric plasmas as electromagnetic reflectors. IEEE Trans. Plasma Sci. [Online]. 21(3), pp. 876-880. Available: <http://www.halcyon.com/pub/journals/21ps03-vidmar>