

From: University of Melbourne

### **What is a literature review?**

The aim of a literature review is to show "that the writer has studied existing work in the field with insight" (Haywood and Wragg, 1982). It is not enough merely to show what others in your field have discovered. You need to view the work of others with insight to review critically. An effective review analyses and synthesizes material, and it should meet the following requirements: (Caulley, 1992)

- Compare and contrast different authors' views on an issue
- Group authors who draw similar conclusions,
- Criticise aspects of methodology,
- Note areas in which authors are in disagreement,
- Highlight exemplary studies,
- Identify patterns or trends in the literature
- Highlight gaps in and omissions in previous research or questions left unanswered
- Show how your study relates to previous studies,
- Show how your study relates to the literature in general,
- Conclude by summarising what the literature says.

A literature review has a number of purposes. It enables you to :

- Define and limit the problem you are working on,
- Place your study in a historical perspective,
- Avoid unnecessary duplication,
- Evaluate promising research methods,
- Relate your findings to previous knowledge and suggest further research.
- Give your Supervisor a sense of your research interests

As can be seen from the purposes above, the literature review is an exploration of an area, which at best will provide definition and a framework for a piece of research. Most students are not experts in their chosen field before they start their reading. The idea of the literature review is to develop a good working knowledge of the research in a particular area. The final written review should reflect the results of this preliminary research. So, a good literature review raises questions and identifies areas to be explored. The review should give an idea of the work that has been carried out in the subject area, preparing the reader for the study that is to follow.

## **The rationale**

A good literature review presents a clear case and context for the project which makes up the rest of the thesis. Even if you are writing your review before you start your data collection, it is important to make clear the relationship of previous research to your thesis project.

This relationship between past work and your rationale is the most important influence on the structure and length of your literature review. Keep in mind that your purpose is important, because it will help to focus and direct your reading.

## **Keeping track of reading materials**

Because the nature of a literature review is to be dependent on what other authors have said, it is vital that you develop good referencing skills. These skills should be put into use the moment you first pick up a piece of written material. As soon as you pick up an article, put the publication details into your selected referencing system. The University Library has site licenses for three referencing products: Endnote, Endnote Web and RefWorks. Additionally there are free bibliographic management programs available on the web, such as Zotero. [EndNote](#) - EndNote is a full-featured bibliographic management package and is widely used by researchers at the University. It can be used to:

- store bibliographic records (e.g. details of books, chapters, journal articles, websites, conference papers, theses, reports, etc.), PDF files, other attachments, links and research notes added manually or imported from web-based search engines/databases
- automatically generate citations and bibliographies in specific styles (e.g. APA 5th, Chicago 15a, Vancouver) in word-processed documents
- search and retrieve bibliographic records from library catalogues and journal indexing databases.
- retrieve articles by querying the University SourceIt system for web locations
- the latest version, Endnote X3 can also search the web, locate an article in PDF format and attach it to a reference based on the information in the reference alone, even when you need to connect through SuperSearch to get an article.

## **Some guidelines for writing a literature review**

- Establish your research questions and organise your literature into logical categories around the subject/topic areas of your questions
- Begin the literature review with an introduction to the topic. What is its significance and importance? Provide an overview of the contents of the review
- Critically analyse the relevant literature in relation to the research questions stating the content of the literature, the implications of this knowledge, any gaps or deficiencies, any inconsistencies or conflicting viewpoints
- Ensure you make your own interpretations and that you have written a critical and evaluative review

- Your conclusion should draw together the important points and briefly explain how the information answers your original research question
- You need to establish if more research is needed to provide a deeper understanding of the subject/topic, especially if there are inconsistencies or conflicting points of view
- Avoid plagiarism- understand the guidelines and acknowledge the source of ideas and quotations of other researchers. This adds authority and credibility to your work.

## **Strategies and issues to consider**

- The literature review relates to your research questions so think of the key concepts/issues surrounding them. Your literature review is judged within the context of your completed research
- Establish terminology and key words. Thesauri can assist. Mind spelling variations
- Construct a search strategy. Use Boolean operators (OR, AND, NOT)
- The absence of research in the literature may help confirm that this is an area which needs further research. You may need to broaden your search by looking for literature in related fields.
- Determine the scope of your literature search. The scope of the literature search and review is bound up with the research problem
- The breadth of reading may depend on whether this is a new research area where reading may need to be more extensive, or a well-researched area where reading may be more focused
- Decide whether to be comprehensive or selective in your coverage? What is your rationale? What is your interest? There are inherent difficulties in attempting to be comprehensive
- How far back you should search may depend on the topic/subject? You might only include historical landmark studies while including a broader approach to more current research
- Start with the most recent sources and search backwards
- You may read articles only to decide to exclude them
- It is worth thinking laterally to other fields given the multidisciplinary nature of research (depending on the discipline area.)

## **Searching the literature - locating your resources**

The first step towards a good literature review is a comprehensive literature search. You need to make sure you are getting a good range of the available literature in your area of study. Keep in mind as you are searching that the age of the material is relevant. The best method is to start from the most recent sources and work backwards. This also puts you in a better position to let good studies guide your reading. You can always go back and check that seminal reference everyone else quotes.

- Use a variety of resources to cover a range of media- a literature review should include a range of literature, such as books, journal articles, or Internet sites. Theses, conference papers, eprints and

government or industry reports can also be included. Do not rely solely on electronic full-text material which is more easily available

- Be aware of the importance of evaluating information. Is a journal refereed/peer reviewed, is a source authoritative?
- When beginning a literature search, reference sources such as dictionaries can assist in defining terminology, and encyclopedias may be useful in introducing topics and listing key references
- Most searching is done by subject. You can also do author searches and search using citation indexes (i.e. Web of Science or Scopus databases.)
- Some databases have automatic current aware services. These can help you keep your literature search up to date
- Ensure you take care with recording your references. Keep systematic and accurate records. Software such as EndNote can assist. Be careful to record page numbers where you found quotes.
- Good time-management skills can help you to feel in control! Aim to find the most important relevant material early. Read as you go and make critical and evaluative notes as you read

Places to search for reading material:

- Scholarly online indexing and abstracting databases - search individual indexes and journal collections
- Literature reviews may already exist on some aspect of your topic. Search online databases carefully to find literature reviews.
- Theses & Dissertation databases
- Search the catalogue to locate physical items in libraries, and e-books. Use the catalogue keyword search.
- Review articles, which give a detailed coverage of the literature of a topic, are usually very useful
- Key articles, which are very relevant to the topic, may have bibliographies or reference lists which often lead to other relevant items. These can also be a good guideline about how much you have read on your topic.

### **Tips on critical reading**

The first step towards critical reading is to keep your purpose in mind when you read. Don't let the arguments in the book distract you from your reading agenda. Before beginning to read, take a few moments to think about what it is you are expecting from the article or chapter.

Previewing or prereading can help you focus your thoughts. Skim the headings and the abstract of the piece, perhaps look at the first line of each paragraph and the conclusion.

- Do you need to read everything with equal attention?
- Can you see where the arguments are headed?
- Preread before you copy - you may not need to copy every page

## Critical reading of web based material

Most information that appears on the internet has not been peer reviewed, unlike many journal articles and most scholarly books. Therefore it is very important that you read these writings critically and objectively. There are many excellent resources and lots of knowledge on the internet, you just need to be a little careful.

When you are looking at material online, keep a critical focus. You might want to ask some questions like these:

- Who are the authors of this piece? What do you know about them?
- What is the perspective of the writer? (Think about the contexts of gender and culture)
- Why does the site exist?
- How old is the material?
- Are the arguments logical?
- Is there reliable evidence to support the author's contentions?
- Is the material correctly and fully referenced or linked to other online information?

## Asking questions

You should have some specific questions in mind as you read. These may be quite general ("Have there been any specific studies on the role of women in electoral lobbying?") or more specific, ("Are these results comparable with the Japanese study using the same questionnaire?"). These sorts of questions will help you concentrate and deal with the material in an active manner. If you are looking for specific information, you don't need to summarise the whole article or book.

Keeping a list of questions in mind will sharpen your analytical skills and help you keep an objective outlook on your material. Here are some sample questions aimed at eliciting a criticism of experimental methodology:

- What were the authors trying to discover?
- Why is this piece of research important?
- What was measured?
- What information do you have on the sample?
- How was the data collected?
- What were the results?
- What do the authors conclude and to what do they attribute their findings?
- Can you accept the findings as true?
- How can you apply these findings to your own work?

When results are conflicting, you might find it useful to ask the following questions:

- How similar were the programs used?
- Were different measurement instruments used?
- How were the programs evaluated?

These questions will form the basis of your written review. Asking them as you read will tend to slow your reading process down, because you will be thinking as you go. However, doing your critical work early will make the process of writing a critical review much easier. If you take comprehensive notes in your own words as you read and think you will have done the really hard work before you start to write.

## Taking notes

Your note taking should reflect your reading questions. Summaries have their uses, but they aren't the building blocks of a good literature review. Taking notes and making critical comments is more useful.

Keep in mind that although taking notes is time consuming, much of it will be directly usable later. For this reason, it is useful to take notes using your computer, rather than in longhand. This can also contribute to a sense of the progress of your thesis, rather than thinking of the reading as being somehow separate from the writing.

- When you take notes, you may like to try splitting your notes page in two.
- Write your summary of the authors conclusions and evidence in one column.
- In the other half of your page, note your reactions to what you have read.
- Comment on methodology.
- Make connections between your project and what you are reading.
- Compare and contrast the views of other authors.
- Make a note of what you think about the material.
- Even comments like "These arguments are confusing" or "I don't understand this" may be useful.

This two column system has several advantages:

- It keeps you thinking about the major issues and ideas.
- You will be able to differentiate between your views and the work of others, thus reducing the risk of plagiarism ( your material is on one side of the page, everything used from the other side of the page **must** be acknowledged.)
- You are more likely to filter material and therefore take a more critical approach.

An alternative to the two columns is to use two colours of pen - one for your ideas and the other for quotes and paraphrases. If you prefer writing your notes on file cards, this may be a better choice.

It doesn't really matter how you organise and write your notes as long as you:

- Keep track of the difference between your ideas and those of other authors
- Make sure your notes are legible
- Remember to provide clear references including page numbers in case you want to look at the original material again, or cite it in your review.

## Reviewing & rethinking

It is a good idea to look over your notes the day after you do the reading. Doing this straight away means that the material is more likely to end up in your long term memory and therefore be more readily retrievable. The review process should only take ten minutes. A review session also gives you a chance to have another think about the reading material. Re-read your notes, adding additional comment where necessary. Double check that you have all the referencing information.

## Structure of the literature review

Part of your task in taking notes is to begin the process of sifting and arranging ideas. Although your literature review will rely heavily on the sources you read for its information, the structure of the review should be dictated by you. It is important that the concepts are presented in an order that makes sense in the context of your research project.

You need to do some work on planning and structure to ensure that your literature review is a coherent piece of work. Some of this planning work can happen as you read, but you may also need to do a brainstorming session to work out a plan for the review as a whole.

There may be clear divisions in the sets of ideas you want to discuss, in which case your structure may be fairly clear. This is an ideal situation. In more cases, there will be several different possible structures for your review. Making an outline or plan is a good way to experiment with these different structures. Talk to your supervisor before you make a final decision and start writing.

### Tips on structure

A common error in literature reviews is for writers to present material from one author, followed by information from another, then another.... The way in which you group authors and link ideas will help avoid this problem. To group authors who draw similar conclusions, you can use linking words such as:

- *also*
- *additionally*
- *again*
- *similarly.*

When authors disagree, linking words that indicate contrast will show how you have analysed their work. Words such as:

- *however*
- *conversely*
- *on the other hand*
- *nonetheless*

will indicate to your reader how you have analysed the material. At other times you may want to qualify an author's work (using such words as *specifically, usually or generally*) or use an example (*thus, namely, to*

*illustrate*). In this way you ensure that you are synthesising the material, not just describing the work already carried out in your field.

Another major problem is that literature reviews are often written as if they stand alone, without links to the rest of the thesis. There needs to be a clear relationship between the literature review and the hypothesis and methodology to follow. At the end of your review, include a summary of what the literature implies. You need to do this in a way that clearly links with your own hypotheses and methodology.

## **A final checklist**

### **Selection of sources**

- Have you indicated the purpose of the review?
- Are the parameters of the review reasonable?
- Why did you include some of the literature and exclude others?
- Which years did you exclude?
- Have you emphasised recent developments?
- Have you focussed on primary sources with only selective use of secondary sources?
- Is the literature you have selected relevant?
- Is your bibliographic data complete?

### **Critical evaluation of the literature**

- Have you organised your material according to issues?
- Is there a logic to the way you organised the material?
- Does the amount of detail included on an issue relate to its importance?
- Have you been sufficiently critical of design and methodological issues?
- Have you indicated when results were conflicting or inconclusive and discussed possible reasons?
- Have you indicated the relevance of each reference to your research?

### **Interpretation**

- Has your summary of the current literature contributed to the reader's understanding of the problems?
- Does the design of your research reflect the methodological implications of the literature review?

### **Note**

- The literature review will be judged in the context of your completed research.
- The review needs to further the reader's understanding of the problem and whether it provides a rationale for your research.