Most research reports and theses have a literature review, which discusses the "literature" around your research topic. The lit. review is often the second section or chapter of your work, coming directly after the introduction.

However, you may need to discuss the literature in a number of sections in your report. For example:

- methodology – most people include some theory about their chosen methods.
- discussion – this section often links your findings back to the literature

In other assignments you will be using research (literature) to support points you are making in relation your topic. You will need to know how to integrate this material with your own writing.

What is ‘the literature’?

The literature refers to the previous works or sources of information relevant to your research area, both theoretical (ideas-based) or empirical (collected or observed data). This selected material may include:

- primary sources
  - first hand reports of research found in academic journal articles, books of collected articles or conference papers
  - other original materials, such as historical documents, company reports, diaries or works of art or literature.
- secondary sources
  - critical evaluations and syntheses of original studies
- tertiary sources
  - information and ideas often put together from secondary sources, e.g. text books that provide a broad overview of the topic.

What's the purpose of a literature review?

The main purpose is to locate your research in the context of what is already known in your topic area. Your literature review will:

- identify "the gap" in the existing knowledge
- indicate where your research fits
- make a case for the necessity of your research

NOTE: The literature review is not:
- a summary of studies in your field one by one, paragraph by paragraph
- a complete historical background to your topic area.
What questions will the literature review answer?
Here are some useful questions to think about:

- What do we already know in the area/s under investigation?
- What are the key concepts, factors or variables?
- What are the existing theories?
- What are the inconsistencies, limitations or problems in the existing research?
- How does the existing knowledge relate to your study?
- Why study this problem?
- What contribution could the present study make? (i.e. who will benefit?)

Who is the audience?
Assume your reader has a good general knowledge of your subject area but not your specific topic area. You will need to:

- give a brief background to the topic area
- explain major concepts or define specific terms
- use well-chosen, relevant examples.

How long should it be?
A lit. review may vary from several pages to several chapters according to the overall length of your thesis or report and the availability of current research.

How do I select material?
Use three major criteria for selection, and ask yourself some questions:

- **relevance**
  - has the material contributed to the development of you main concepts?
  - does it clarify your position (either by supporting or contrasting with it)?
  - does it provide key interpretations or models you can apply to your design?
  - is the material bound to a particular context or culture?
- **authority**
  - is the author qualified to report on the subject?
  - has it been published by a reputable source or can you justify why it is an important source?
  - has the material been critically evaluated or assessed by other authors or colleagues; for example, peer reviewed or professionally edited.
- **currency**
  - is the material still influential in the field?
  - are you keeping up to date with new research?

Be careful: A lot of the information on the internet is not suitable as an academic source. Start with the databases of the RMIT University library or other primary source material, rather than using a general search engine. The RMIT liaison librarian for your discipline area can help you search for appropriate material.
When should I write the literature review?

The literature review is a continuing process from early background reading right up to just before you submit. The process may be something like this:

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<th>Pre-proposal</th>
<th>Proposal</th>
<th>Data collection</th>
<th>Writing (drafting)</th>
<th>Editing</th>
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<tbody>
<tr>
<td>Exploring the topic</td>
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<td>Refining the topic</td>
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<td>Strengthening theoretical base</td>
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<td>Grouping and sorting research</td>
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<td>Reflecting on data/analysis</td>
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<td>Keeping up to date</td>
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<td>Final check</td>
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How is the literature review structured?

The literature review usually starts broadly and narrows the focus down to your own research.

Introduce the problem & set the context

Analyse past research
- highlight the development of major concepts, influential studies etc.
- focus on areas of agreement, modification of design, tensions and inadequacies, narrowing the focus to studies closest to your own

Identify ‘the gap’ where your own research fits

Sum up and link to your research
How do I start to organise my material?

The review should be organised around the concepts and issues related to your research rather than authors. Sketch out some possible sub-sections before you write, maybe using a mind-map, a visual representation of your ideas showing relationships. Your approach may be one or a combination of these:

- chronological
- thematic
- conceptual
- methodological.

Example 1. Planning

Here is a very rough structural plan for the lit. review of a Research Project. The organisation is thematic. The writer has grouped the authors she is using into three sub-headings and ordered them from general to more directly related to her own topic.

The topic is: Maintenance of cultural identity in Indian diasporic communities through Bollywood movies

1. Globalisation, diaspora & the media

2. Cultural identity of diaspora
   Kolar-Panov (in Mishra 2002)

3. The use of the media (Bollywood Cinema)
   Dasgupta (2000)
   Kolar-Panov (in Mishra 2002)
   Radjadhyksha & Willman (in Ray 2000)

4. The Gap: the student's own topic. This brings together these three fields of research.
Here are two extracts of literature review structures taken from Tables of Contents:

Example 2a:
Chapter 2. Literature Review
  2.1 Introduction to inventory management
  2.2 Pareto analysis and ABC analysis
  2.3 Materials requirements planning
  2.4 Safety stock
  2.5 Demand forecasting concepts
  2.6 Just-in-Time theory
  2.7 The impact of Just-in-Time on manufacturing, planning and control

Example 2b:
From: Business PhD thesis (abbreviated)
Topic: The financial Impact of Top Management Groups in X Corporation

Chapter 2. Relevant Research and Theory
  2.1 The performance perspective
  2.2 The main research streams
  2.3 Lessons from the Stewardship
  ....
  2.7 The case for using the demography
     2.7.1 Organisational Demography
     2.7.2 The effects of Cohorts
     2.7.3 The Congruence Assumption
  ....
  2.11 Summary

Critiquing, analysing and synthesising information

In your literature review you need to critically analyse and synthesise the views and merits of research in your field.

To be critical, you need to move from:

- identifying
- describing
- summarising

... to:

- recombining ideas
- synthesising information
- evaluating
Ask critical questions about the methodologies, claims and evidence provided, such as:

- What assumptions have been made? Are they reasonable?
- What arguments have been given? Is there enough evidence to support them?
- What conclusions are made? Are they logical?
- How does the writer address disagreements with others in the field?
- How does this article relate to other work?

**Where is my own voice?**

As the writer, you should be controlling:

- the overall structure of the review
- the way in which you integrate and comment upon the work in the field.

Research in general problem solving suggests that planning, monitoring and evaluation are important factors in performance (Flavell, 1987; Nelson & Narens, 1994). Schoenfeld (1985) reported a positive relationship between metacognition and problem solving in algebra and geometry. However, Wells and Mathews (1994) suggested high metacognitive activity may hinder performance. Hence, there is some inconsistency regarding metacognition and performance. In this regard, Lester (1989) argued that researchers need to assess the role of metacognition in more specific areas such as novel algebraic word-problem solving.

Similarly, little attention has been paid to critical thinking in algebraic problem solving. In fact, Rabinowitz (1986) argued that everyday thinking does not involve logical thinking and as such formal logistics should not be taught at all. However, Hatcher (1988), Paul (1990) and Potter et al. (1991) among others believe logical thinking and reasoning to be of critical importance in problem solving generally. Indeed Norris and Ennis (1989) and Paul (1990) have developed frameworks for analysing critical thinking in problem solving.

**How do I cite the work of others?**

You need to decide whether to focus on the **information** or the **author**. Different disciplines favour particular reporting styles.

- **information focus**, e.g.

  Internationalising the curriculum means more than mere enrichment (Maxwell 2003)
What reporting verbs should I use?

Avoid over-using "states" and "says". You may need to use tentative or evaluative verbs.

- **Tentative** verbs are often used to show that findings are incomplete or difficult to generalise from.
  - e.g. Research suggests that a majority of people prefer email to… (Mahlab 1995).
  - Wang (2003) indicates that such results are not necessarily…

- **Evaluative** verbs can pack in extra meaning by incorporating your evaluation of the text.
  - e.g. Jacob concedes that the test is not 100 per cent reliable.
  - This is much stronger than "Jacob states that…" since concedes includes the judgement that Jacob was reluctant to make the acknowledgement.

Some other strong reporting words are:
- describe, contend, examine, assert, dispute, claim, purport, persuade, refute, concur, recommend, object, dismiss, contradict, propose, examine, observe
Should I use quotes or paraphrases?

Quotations are usually used only for:
- definitions of technical terms or key words and concepts
- particularly significant phrasing
- maintaining the writer’s specific intention.

Paraphrases are the main means of citing authors. The advantages of paraphrasing are:
- showing that you understand and can interpret the original material
- allowing you to maintain your own voice.

How is the literature review judged?

It is usually judged in three main areas:
1. The selection of the literature
   - Have you clearly indicated the scope and purpose of the review?
   - Have you included a balanced coverage of what is available?
   - Have you included the most recent and relevant studies?
   - Have you included enough material to show the development and limitations in this area?
   - Have you indicated the source of the literature by referencing accurately?
   - Have you used mostly primary sources or appropriate secondary sources?

2. Critique of the literature
   - Have you clearly (and logically) ordered and sorted the research, focussing on themes or ideas rather than the authors
   - Does the review move from broader concepts to a more specific focus?
   - Is there adequate critique of research limitations, including design and methodology?
   - Are the studies compared and contrasted with controversies highlighted?
   - Is the relevance to your problem clear?

3. Summary and interpretation of the literature
   - Have you made an overall interpretation of what is available?
   - Do the implications provide theoretical of empirical justification for your own research questions/hypothesis?
   - Do the implications provide a rationale for your research design?

Tips for success

- Read selectively
  Don't try to read everything. Select the most useful and relevant research for your specific topic area.
- Start writing early
  Reading can be an excuse to avoid writing. Map out the areas you need to cover and try to write as you go. This helps to clarify your thinking and makes writing less overwhelming.
- Focus on the issues
  Develop a logical structure. You need to not only summarise existing knowledge but also analyse and evaluate it in relation to your own research
- Keep complete and accurate bibliographical information.