The Literature Review
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Reviewing the literature is an ongoing activity which continues throughout the research process. The results of the review are not confined to a chapter at the beginning of the thesis or to the introduction of a paper, this process contributes to all sections of research.

Why bother to do a literature review at all?
- To ascertain if the topic has been researched before, thereby preventing wasted time and effort.
- Build on the work and experience of others and though the process, becoming aware of subtle variables which could affect the research.
- Broaden research horizons.
- Narrow the research topic.

Sources of information
1. Scientific journals
Journals are the prime source of scientific reporting and are up to date, increasingly so as more and more journals become online. Specialist journals are available in each field. “State of the Art” and review articles are valuable as they are summary publications of work to date. The validity of the journal is acknowledged as each submission is subjected to peer review before publishing. The quality of the journal is given via the impact factor & DNE accreditation. Unfortunately there are different standards of “reputable journals”. Long publication times cause the research to loose currency.

2. Textbooks
A good starting place to find information with good breadth and depth. Books can serve as a source of well established facts and standard procedures. Rare conditions or events may only be found in monographs. The nature of books means they are usually out of date especially in growing fields.

3. Conferences and conference proceedings
Conferences serve as a venue for quick dissemination of research results which can be used as a source of current information. The work presented will indicate areas and direction of research activity and can serve as a valuable source of research topics. The work presented may be peer reviewed: but formal acknowledgement depends on discipline and publication type eg. engineering, rangelands etc. Thus the information presented may not always be reliable and will certainly lack detail.

4. Theses and dissertations
Can be a good indicator of available campus and local instrumentation and can serve as a good source for follow-up studies. Theses contain considerable detail. They are not always published so a Sabinet search needs to be done to check for duplication. The quality of theses can be variable as will be the reliability of information.

5. Company and government reports
Extremely valuable information on practical problems. The data is of good quality as it is usually collected by professional researchers and consultants. Such reports are often not available because of commercial interests, security concerns and confidentiality clauses.

6. People or personal communication
People can provide useful insights, good advice and appropriate directions for research paths. Researchers can also serve as a source of pilot or preliminary results. Pers comm will probably be untested and invalid unless the person is an acknowledged expert in the field: thus the information should be treated with caution.

7. Magazines and newspapers
Magazines and newspapers reflect popular opinion and can therefore be a source of research questions. Their reliability is source dependant eg. National Geographic vs You magazine. The information they contain is untested, thus should be treated with caution.

8. The Internet
Sources of information on the Internet can be websites, e-mail, chat rooms, newsgroups and bulletin boards. The slogan “The World at your Fingertips” is very apt and search engines such as Netscape and Google can assist to find specialist databases eg. PubMed and Ebsco. So much information is available that sifting the irrelevant from what is useful is time consuming. The value of the information depends on site quality, therefore information obtained should be treated with caution. Appropriate key words are vital for a successful search, so keep a record of the terms used and the success or otherwise of the “haul”.

Problems encountered when doing a literature review

♦ Overcoming the starting hurdle
  – Don’t know where to start looking, don’t know what you are looking for
  – Don’t recognise a “find”
♦ Irrelevant information
  – Unfocussed = “The more references the merrier”
♦ Tedium
♦ Trying to remember everything
♦ Sorting and ordering the information
♦ Keeping the information and the author together for correct referencing
♦ Problem of control

The way to do a literature review
1. Always start with the most recent sources and work backwards
2. Examine the title
3. Does the reference appear to be relevant?
  – Copy abstract and reference from PubMed into relevant section of review ie. background, methodology, discussion etc
  – Copy and paste the full reference in the reference list and edit to conform to requirements
4. Get the paper
5. Read attentively - several times to decipher
6. Is it relevant
  – Copy / type important information below the abstract
    • Include additional detail from the paper
    • Scan in useful graphs, tables and diagrams
  – Consult the reference list of the article
    • Note promising references for further investigation
7. The same reference can be relevant in more than one section of your research so put these in place.
8. Add your own comments and interpretation.
9. Note additional research questions which come to mind.
10. Cross check the source papers referenced for correctness.
11. At each stage ask the following questions:
    - Does it fit into my research??
    - What have I learnt from this source?
    - Has it given me new ideas I need to consider?
12. Copy the first “Review of Literature” draft.
13. Store one file – work on the other.

Once you have all the information, decide how best to organize the literature review. This will depend on your research topic and the information gathered. Organisation can be done according to the following:
1. Chronologically by date of study.
2. By school of thought, theory or definition eg. behavioural studies.
3. By theme or construct eg. experimental work.
4. By hypothesis.
5. By method eg. if results could differ depending on method or technique.

You will then need to construct your review within the organizational frame selected.
1. Identify the “Key” papers.
2. Decide which organizational structure best suits your study.
3. Create appropriate headings and subheadings to “store” information
   - Use “Key” papers within the organisational structure as a guide.
   - These headings can be revised and amended with time.
   - To select headings and to “hang” your discussion onto.
4. Edit the information by deleting irrelevant text and graphics which cannot be used in the research.
5. If sourced graphics/tables are used they MUST be referenced.
6. Group papers together which say the same thing and summarize the facts.
7. Contrast the different arguments.
8. Draw attention to the loopholes.
9. State your OWN opinion.

When fine tuning your literature review you need to consider the following:
1. Questions to ask:
   a. What is the focus of this section?
   b. Have I written what I want to say?
   c. Have I achieved the goal(s) of the review?
   d. “Honest broker” or biased viewpoint.
   e. Is the section interesting and readable?
2. Finish off each section with a single sentence summary of the literature covered and your own opinion of it.
There are huge advantages to doing a comprehensive and structured literature review from the very beginning of your study.

- Concentrates the focus, keeps the "eye on the ball"
- Organises information in a logical manner
- Permits a sensible analysis of information gathered
- Saves time and effort, fewer mistakes
  - Thesis will be 1/3 complete once the review is finished, referee will go beyond the first page of your submitted manuscript

Longer term benefits of writing good literature reviews can be summarized as follows:

- Master the subject field
- Obtain a research skill which will stand in good stead in future research.
- A good literature review establishes scientific credibility
- It is a necessary component of grant applications
- Hones writing skills
  - Outline an argument, Planning a structure, Interrogating information sources and evaluating quality of information, Synthesizing information

Common deficiencies of literature reviews (Hansford and Maxwell, 1993)
1. Poor selection of papers: key references missing, irrelevant papers, outdated work
2. Lacks structure: disorganised ramblings lacking unity and coherence
3. Off the point of the research question
4. Poor interpretation and evaluation of the sourced papers
5. No critical thought
6. Either too long or too superficial

References
Definitions of **Literature review** on the Web:

- A literature review is a body of text that aims to review the critical points of current knowledge on a particular topic.
  en.wikipedia.org/wiki/Literature_review
- A summary and explanation of key studies relevant to a proposed project
  www.pubmedcentral.nih.gov/articlerender.fcgi
- A comprehensive survey of publications in a specific field of study or related to a particular line of research.
  new.wales.gov.uk/about/aboutresearch/social/glossary/
- An extensive search of the information available on a topic which results in a list of references to books, periodicals, and other materials on the topic.
  www.usg.edu/galsico/skills/olc_glossary.html
- A process and documentation of the current relevant research literature regarding a particular topic or subject of interest.
  sanctuaries.nova.gov/education/evaluation/glossary.html
- A survey of progress in a particular aspect of a subject area over a period of time. It will usually have a critical review of other literature on the subject.
  www.purduecollege.com/library/glossary.html
- A summary and interpretation of research findings reported in the literature. May include unstructured qualitative reviews by single authors as ...
  pages.cisbit.com/h2v18d/cow
- A summary of relevant information from studies conducted by others.
  63.252.93.97/LeisureProgramPlanningandDelivery/tg/vogah15.htm

And an alternative view:

- Studying the literature of the area under investigation gives preconceptions about what to find and the researcher gets desensitized by borrowed concepts. ...
  en.wikipedia.org/wiki/Grounded_theory_(Glaser)

What is the purpose of a Literature Review?

The purpose of a literature review is to convey to the reader what knowledge and ideas have been established on a topic and what are the strengths and weaknesses. The literature review allows the reader to be brought up to date regarding the state of research in the field and familiarizes the reader with any contrasting perspectives and viewpoints on the topic. There are good reasons for beginning a literature review before starting a research paper. These reasons include:

- To see what has and has not been investigated.
- To develop general explanation for observed variations in a behavior or phenomenon.
- To identify potential relationships between concepts and to identify researchable hypotheses.
- To learn how others have defined and measured key concepts.
- To identify data sources that other researches have used.
- To develop alternative research projects.
- To discover how a research project is related to the work of others.

Reference:  http://www.library.ncat.edu/ref/guides/literaturereview03.htm
Literature Reviews

The purpose of a literature review is to find, read, and analyze the body of literature published on a particular topic, primarily in a particular field, for its particular trends and gaps. Themes and time-oriented foci reveal the culture of the discipline and the attitudes toward a particular topic. Further narrowing techniques, such as geographic location, may be employed in the analysis. Literature reviews neither lambaste nor offer saccharine praise; they critique vs. criticize, i.e. they carefully engage in a meta-analysis of the existent research. Finally, what is not found in the process of creating a literature review is as important as what is found. Literature reviews are comprehensive in nature.

Style Sheet: The style sheet chosen should be particular to the audience with whom the writer is conversing.

Process

Prewriting:
• Choose a topic and run it by your professor for suitability and feasibility.

• Locate a seminal article on your topic.

• Use the key words, author’s name, and bibliographic data to locate other journal articles.

  Note: you should focus on primary resources, as editorial changes are sometimes made for compilations. (If using an anthology, compare that published version to the original when possible.)

• Carefully read your articles, noting trends, questions, biases, methodology, and so forth in the margins.

• Gather like evidence; it is easiest to do this on index cards. Be sure to keep note of citation information.

• Organize your card into piles; from this organization, you can then pick an effective order and devise a working thesis and introduction.

• Engage in some messy prewriting activity for each pile – What are you noting? What does it mean? Why is it important? What cultural biases are shown? Is there a time-frame connection?

Drafting:
• Write your paper in sections.

• Analyze the body of your literature review for overarching patterns which will provide the basis for revising your introduction and for composing your conclusion.

Revision/editing:
• Let your paper sit for a bit.
• Engage in peer review.

• Analyze your own paper as if it were one of your found articles.

• Make notes on trends, connections, metaphors, gaps.

• Check balance.

• Check logic.

• Check form -- title page, abstract, introduction, headings, transitional and topic sentences, conclusion.

• Discover what else you have to say.

• Take more notes, prewrite again, and finally, actually make changes.

Proofreading:
• Read aloud — gasping may indicate an overly long sentence, missing words become obvious, odd constructions sound funny.

• Read backwards, sentence by sentence — fragments, run-ons and comma splices become evident, & agreement can easily be checked.

• Spell check.

• Check that each citation has a corresponding bibliographic entry.

• Check each citation for accuracy and placement.

• Check each bibliographic entry.

S://writing/handouts/literaturereviews
https://www.tacoma.washington.edu/ctlt/learning/resources/LiteratureReviews.pdf