TCU resources:

http://www.library.tcu.edu/

click on Research and Tools

click on Research Guides tab on the dropdown menu

click on Geology, Energy, and the Environment to get to your topic

Also notice a tool called **RefWorks**. This tool will really help you to do your references correctly, choosing the style required by your professor for your project.

The following are some tips collected from various sources....

How To Do A Literature Review?

What is a Literature Review?

A literature review is a summary of previous research on a topic. Literature reviews can be either a part of a larger report of a research project, a thesis or a bibliographic essay that is published separately in a scholarly journal. Some questions to think about as you develop your literature review:

- What is known about the subject?
- Are there any gaps in the knowledge of the subject?
- Have areas of further study been identified by other researchers that you may want to consider?
- Who are the significant research personalities in this area?
- Is there consensus about the topic?
- What aspects have generated significant debate on the topic?
- What methods or problems were identified by others studying in the field and how might they impact your research?
- What is the most productive methodology for your research based on the literature you have reviewed?
- What is the current status of research in this area?
- What sources of information or data were identified that might be useful to you?

If the literature review is part of a Ph.D. dissertation, this review will be comprehensive covering all research on the topic. As part of your research report, you need to cover the major work that has been done on the topic recently, but it is not necessary to try to identify all research on the subject.

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.



How to do a literature search?

- **1.** Developing a search strategy
- **Defining the topic** In order to begin your literature review you must first define your research question. What is the purpose? What does it mean? What are the key words? Are there other words which could be used, such as synonyms, variations in spelling? What do you already know about the topic? What is the scope? Do you need everything ever written in English on this topic, or just the last ten years?
- Compiling a list of keywords Before beginning a search for information, it is important to develop a search strategy that will most effectively locate useful, relevant information. This will often involve breaking down an essay or research question into:

keywords or phrases; entering your search; and evaluating your results to determine whether you need to employ various strategies to broaden, narrow or otherwise modify your research.

Analyzing the topic of an essay question or research topic usually involves making a list of *keywords* or phrases. You will need to include all the key concepts or ideas contained within the essay or research question. It might be useful to include alternative ways of phrasing and expressing concepts and ideas. Think about both general terms and very specific terms for broadening and narrowing your search. The keyword or phrase is the basic unit of any search. You may find it helpful to consult subject dictionaries and encyclopedias, or a textbook glossary for the common terminology of the subject area. The use of an index and/or thesaurus is also advisable to establish the useful terms.

- 2. **Identifying Resources** Information is available in a number of formats. It is important for you to understand the significance of various formats so that you know what will best suit your information requirements.
- Books
- Reference Materials
- Journals
- Conference Papers
- Dissertations
- Internet

- Indexes/Abstracts Printed
 - Electronic Databases
- Government publications
- Theses

3. Examples of good Literature Reviews

- Boyanov, M. I., S. D. Kelly, K. M. Kemner, B. A. Bunker, J. B. Fein and D. A. Fowle. 2003. Adsorption of cadmium to
 Bacillus subtilis bacterial cell walls: a pH-dependent X-ray absorption fine structure spectroscopy study. *Geochimica et Cosmochimica ActaPages*. 67, 18: 3299-3536.
- Chan, Steve. (1997) In Search of Democratic Peace: Problems and Promise. Mershon International Studies Review. 41,1:59-92.
- Goeser, C. 2003. On The Cross of The South: The Scottsboro Boys as Vernacular Christs in Harlem Renaissance Illustration. *International Review of African American Art.* 19,1: 19-27.
- Holt,-Robert-R. 2003. Some history of a methodological rediscovery. *American-Psychologist*. 58,5: 406-407.

db/09.03

The Literature Review: A Few Tips On Conducting It

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Printable PDF Version
Fair-Use Policy

What is a review of the literature?

A literature review is an account of what has been published on a topic by accredited scholars and researchers. Occasionally you will be asked to write one as a separate assignment (sometimes in the form of an **annotated bibliography**—see the bottom of the next page), but more often it is part of the introduction to an essay, research report, or thesis. In writing the literature review, your purpose is to convey to your reader what knowledge and ideas have been established on a topic, and what their strengths and weaknesses are. As a piece of writing, the literature review must be defined by a guiding concept (e.g., your research objective, the problem or issue you are discussing, or your argumentative thesis). It is not just a descriptive list of the material available, or a set of summaries

Besides enlarging your knowledge about the topic, writing a literature review lets you gain and demonstrate skills in two areas

- 1. **information seeking**: the ability to scan the literature efficiently, using manual or computerized methods, to identify a set of useful articles and books
- 2. **critical appraisal**: the ability to apply principles of analysis to identify unbiased and valid studies.

A literature review must do these things

- 1. be organized around and related directly to the thesis or research question you are developing
- 2. synthesize results into a summary of what is and is not known
- 3. identify areas of controversy in the literature
- 4. formulate questions that need further research

Ask yourself questions like these:

- 1. What is the **specific thesis, problem, or research question** that my literature review helps to define?
- 2. What **type** of literature review am I conducting? Am I looking at issues of theory? methodology? policy? quantitative research (e.g., on the effectiveness of a new procedure)? qualitative research (e.g., studies)?
- 3. What is the **scope** of my literature review? What types of publications am I using (e.g., journals, books, government documents, popular media)? What discipline am I working in (e.g., nursing psychology, sociology, medicine)?
- 4. How good was my **information seeking**? Has my search been wide enough to ensure I've found all the relevant material? Has it been narrow enough to exclude irrelevant material? Is the number of sources I've used appropriate for the length of my paper?
- 5. Have I **critically analysed** the literature I use? Do I follow through a set of concepts and questions, comparing items to each other in the ways they deal with them? Instead of just listing and summarizing items, do I assess them, discussing strengths and weaknesses?
- 6. Have I cited and discussed studies **contrary** to my perspective?
- 7. Will the reader find my literature review **relevant**, **appropriate**, **and useful**?

Ask yourself questions like these about each book or article you include:

- 1. Has the author formulated a problem/issue?
- 2. Is it clearly defined? Is its significance (scope, severity, relevance) clearly established?
- 3. Could the problem have been approached more effectively from another perspective?
- 4. What is the author's research orientation (e.g., interpretive, critical science, combination)?
- 5. What is the author's theoretical framework (e.g., psychological, developmental, feminist)?
- 6. What is the relationship between the theoretical and research perspectives?
- 7. Has the author evaluated the literature relevant to the problem/issue? Does the author include literature taking positions she or he does not agree with?
- 8. In a research study, how good are the basic components of the study design (e.g., population, intervention, outcome)? How accurate and valid are the measurements? Is the analysis of the data accurate and relevant to the research question? Are the conclusions validly based upon the data and analysis?
- 9. In material written for a popular readership, does the author use appeals to emotion, one-sided examples, or rhetorically-charged language and tone? Is there an objective basis to the reasoning, or is the author merely "proving" what he or she already believes?
- 10. How does the author structure the argument? Can you "deconstruct" the flow of the argument to see whether or where it breaks down logically (e.g., in establishing cause-effect relationships)?
- 11. In what ways does this book or article contribute to our understanding of the problem under study, and in what ways is it useful for practice? What are the strengths and limitations?
- 12. How does this book or article relate to the specific thesis or question I am developing?

Final Notes:

A literature review is a piece of **discursive prose**, not a list describing or summarizing one piece of literature after another. It's usually a bad sign to see every paragraph beginning with the name of a researcher. Instead, organize the literature review into sections that present themes or identify trends, including relevant theory. You are not trying to list all the material published, but to synthesize and evaluate it according to the guiding concept of your thesis or research question

If you are writing an **annotated bibliography**, you may need to summarize each item briefly, but should still follow through themes and concepts and do some critical assessment of material. Use an overall introduction and conclusion to state the scope of your coverage and to formulate the question, problem, or concept your chosen material illuminates. Usually you will have the option of grouping items into sections—this helps you indicate comparisons and relationships. You may be able to write a paragraph or so to introduce the focus of each section