

Literature Review (LR)

- In general, students don't understand the purpose of investigating the literature
- Its function – the more one knows the more knowledgeably one can approach the problems
- **Re+view** = **look again** at what others have done in areas that are similar, though not necessarily identical to, one's own area of investigation
- As a researcher, you should know the literature about your topic *very, very well*
- Many benefits from review

Benefits of Literature Review

- It can offer new ideas, perspectives, and approaches that may not have occurred to you
- It can inform you about other researchers who conduct work in this area – individuals whom you may wish to contact for advice or feedback
- It can show you how others have handled methodological and design issues in studies similar to your own
- It can reveal sources of data that you may not have known existed
- It can introduce you to measurement tools that other researchers have developed and used effectively

Benefits of Literature Review

- It can reveal methods of dealing with problematic situations that may be similar to difficulties you are facing
- It can help you interpret and make sense of your findings and, ultimately, help you tie your results to the work of those who have preceded you
- It will bolster your confidence that your topic is one worth studying, because you will find that others have invested considerable time, effort, and resources in studying it

Benefits of Literature Review

- For PhD, the second last benefit is of particular value
- Theses are presumed to be original investigations into unexplored area
- Candidates thinking a particular problem to be unoccupied territory has been so well tilled by others – practically farmed out
- **Important** - you should know **where others have been** and **what activities** they have been engaged

How to Begin

- **Library catalog** – Locate books relevant to your research topic – may be general textbooks in your discipline or collections of articles written by a variety of experts in the field
- **Indexes and Abstracts** – Begin with periodical in your academic area – Computer Science
- **Online databases** - Access to the literature which contain enormous collections of citations or abstracts related to various subjects and disciplines

How to Begin

In addition to using the library catalog, indexes and abstracts, and online databases, the following strategies are suggested

- Looking at government publications
- Surfing the World Wide Web, and
- Using the citations and reference lists of those who have gone before you – track down *any references that you see cited by three or more other researchers* because such references are clearly influencing current work in your field and should not be overlooked. Whenever possible, *go to the original source and read it yourself* since most authors misrepresent the work of a particular researcher in the same, particular way; apparently, they are reading one another's descriptions of that researcher's work rather than reading the researcher's own words!

How to Begin

- Make as many copies of the bibliographic items as necessary
- Be systematic and thorough
- Relate bibliography to problem

Conducting a Literature Search

1. Write the problem in its entirety at the top of the page or computer screen
2. Write down each subproblem in its entirety as well
3. Identify the important words and phrases in each subproblem
4. Translate these words and phrases into specific topics that you must learn more about. These topics become your “agenda” as you read the literature
5. Go to the library to seek out resources related to your agenda
6. Read!

Evaluating, Organising, and Synthesizing the Literature

- Too many literature reviews do nothing more than report what other people have done and said
- We learn nothing new from such a review; we'd better off reading the original articles for ourselves
- In a good literature review, the researcher doesn't merely report the related literature
- He or she also evaluates, organises, and synthesizes *what others have done*
- Do not only read other people's work but you must also critically evaluate their methods and conclusions

Evaluating, Organising, and Synthesizing the Literature

- *Never take other people's conclusions at face value; determine for yourself whether their conclusions are justified based on the data presented*
- In addition to evaluating what you read, you must also organise the ideas you encounter during your review
- The subproblems within your main problem should, in many cases, provide a general organisational scheme you can use
- Looking at how other authors have organised literature reviews related to your topic may be helpful as well

Evaluating, Organising, and Synthesizing the Literature

- Finally, and perhaps most importantly, you must synthesize what you have learned from your review
- In other words, you must pull together the diverse perspectives and research results you have read into a cohesive whole
- Here are some examples of what you might do:
 1. Compare and contrast varying theoretical perspectives on the topic
 2. Show how approaches to the topic have changed over time

Evaluating, Organising, and Synthesizing the Literature

3. Describe general trends in research findings
4. Identify discrepant or contradictory findings, and suggest possible explanations for such discrepancies
5. Identify general themes that run throughout the literature
 - When you write a literature review that does such things, you have contributed something new to the knowledge in the field even *before* you have conducted your own study
 - In fact, a literature review that makes such a contribution is often publishable in its own right

Writing LR - Guidelines

1. Get the proper **psychological orientation**
2. Have a **plan**
3. **Emphasise relatedness**
4. **Give credit** where credit is due
5. Review the literature. **Don't reproduce it!**
6. **Summarise** what you have said
7. Remember that your **first draft** will almost certainly **NOT** be your last draft
8. Ask others for **advice** and **feedback**

Psychological Orientation

- Get the proper **psychological orientation**
 - Be clear in your thinking – know precisely what you are attempting to do
 - LR is a discussion of the studies, research reports, scholarly or broad spectrum writing
 - Consider discussion with a peer about what others have written in relation to what you plan to do

Psychological Orientation

- This view will help develop proper psychological perspective and see effort in relation to other researchers
- Students consider LR as an unnecessary appendage (something added to or joined to something larger), eager to get on with the research
- To the contrary, a conscientious and thorough review of the literature related to your problem can open up new possibilities and new ways of looking at the problem that might have been totally overlooked otherwise

Have a Plan

- Have a **plan** – Writing a review of the related literature takes planning and organisation
- This effort requires **thought**, **structure**, and **coherence** (connected logically; clear and easy to understand)
- Should outline what you plan to say before beginning writing the literature review
- The problem itself should **suggest relevant areas** for discussion and indicate the direction

Have a Plan

- The **classic, historically** oriented studies are the discrete areas within which your problem lies
- For example, the laser was built from exploring relativistic quantum mechanics and the nature of matter and light in electromagnetic fields
- Begin discussion **from a comprehensive** perspective, like an inverted pyramid – broad end first, then deal with **more specific ideas and studies** that focus in more and more on your own particular problem

Emphasise Relatedness

- **Emphasize relatedness** – keep your reader constantly aware of how the literature you are discussing is related to your problem
- Point out **precisely** what the relationship is
- Literature reviews should never be a chain of isolated summaries of the writings of others
- **Worst** form of discussion, Jones says ...; Black says ...; Brown says ...; Smith says ... - Such is **not a discussion of related literature; no attempt** is made to demonstrate the relatedness of the literature to the problem being researched
- Whenever you cite a study, explain clearly how it relates to your own research problem. Make yourself **accountable** for what you say

Emphasise Relatedness

- Procedures recommended for avoiding the misunderstanding of the purpose of LR:
 1. Write your research problem prominently at the **top of page**. In this location, it will be a constant reminder of the **central axis** around which everything else revolves
 2. Divide the problem by **numbering** its various **subparts**
 3. Divide the remainder of the page into **two columns**
 4. Gather together all the citations that refer to a particular aspect of the problem so that you have as many groups as you have subdivisions of your main problem
 5. In the left-hand column, list each **study** in your review

Emphasise Relatedness

6. In the right-hand column, **opposite each study**, note the particular **subdivision** of the problem to which the study relates and note the **rationale** for including it
7. Add additional pages or table rows as you need them until you have listed every study
8. Write the review. **Head each section** with wording containing the **identical words** found in the statement of problem

Give Credit where Credit is Due

- In writing the literature review, always, *always* credit those authors whose ideas you are using or whose research results you are reporting
- The specific way in which you do this, e.g. with footnotes or with citations in parentheses in the text itself
- You may even want to present other authors' actual words, either within quotation marks (for a phrase or sentence) or in an indented passage

Don't Reproduce the Literature!

- Review the literature. **Don't reproduce it** – writing LR is one of the most challenging works—requires that you keep a clear focus
- **Not** simply quoting long passages or cite at length the words or ideas of others
- Students consider LR as merely a conventional filler – something that everyone does

Don't Reproduce the Literature!

- As important as what others say about their research, and perhaps even more important, is what you say about their research
- Your emphasis should always be on how a particular idea or research finding relates to your own problem – something that only you can discuss
- Advice – guidelines
 1. Present your own discussion
 2. Paraphrase (precis (short statement of the main points of a speech or piece of writing), resume (summary), give a synopsis, an epitome (person or thing that is the perfect example of a quality or type))
 3. Use short, direct quotations if necessary
 4. Long quotations are a last resort. Use them only for a very good reason – for instance, when the specific words that an author uses are as important as the ideas that the author presents

Summarise What You Have Said

- Every discussion of related literature should end with a brief summary section and sets forth its significance in terms of the research problem
- Very important question to ask and continually is “What does it all mean?”
- Many studies end in a **fuzzy** conclusion without coming to any **focal point**
- The heading “Summary” should condense your review into a synopsis of how the existing literature on your topic contributes to an understanding of the specific problem you are trying to solve

First Draft is Not Last Draft

- You should expect to write multiple drafts of your literature review
- In fact, writing the first draft will help you identify parts of the literature that are still unclear to you and places where you may need additional information or references
- Even when you have obtained all the information you need for a complete review, you will typically not be able to express your thoughts with complete clarity the first time around

Ask Others for Advice and Feedback

- Ask others to read your rough draft of the LR, talk with others about what you have found, and get ideas about additional avenues you may need to explore
- Use e-mail to contact people who have an interest in this area of study (e.g., contact the authors of studies that have influenced your own work)
- Explain where you are working, send them a copy of what you have written, and ask for their feedback and suggestions
- You will be amazed at how helpful and supportive people can be when you tell them that you have read their work and would appreciate their opinion