



Research Methodology

(Lecture 4)

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Previous Lecture

- Research Process
- Formulate Research Problem
 - Considerations in selecting a research problem
 - Steps in formulation of a research problem



Outline

- Research Process
- Step 2: Literature Review:
 - What is Literature Review
 - Why need Literature Review
 - How to review the literature
 - How write the Literature Review



Research Process

- Typical Steps of research process:

Define research problem

literature Review

Developing the objectives

Preparing the research design

Data collection

Data analysis

Generalization and Interpretation

Writing Report



Literature Review

- Research is a continuous process.
 - You cannot avoid earlier research work. you must start with earlier work. you should note down all such research work
- Essential preliminary task in order to acquaint yourself with the available body of knowledge in your area of interest
- Literature review is integral part of entire research process and makes valuable contribution to every operational step





Literature Review

- Reviewing literature can be time-consuming, daunting and frustrating, but is also rewarding.
- Literature review has the following functions:
 - I. It provides a theoretical background to your study.
 - II. It helps you establish the links between what you are proposing to examine and what has already been studied
 - III. It enables you to show how your findings have contributed to the existing body of knowledge in your profession.





Literature Review

❖ Why Literature review

– Reasons for reviewing the literature are:

1. Bring clarity and focus to your research problem:

- Helps understand the subject area better
- Helps to conceptualize your research problem
- Helps you understands the relationship between your research problem and the body of knowledge in the area.
- It will help you to focus your study on areas where there are gaps in the existing body of knowledge,





Literature Review

❖ Why Literature review

- Reasons for reviewing the literature are:

2. Improving your research methodology

- Acquaints you with the methodologies that have been used by others
- Informs you of procedures that have worked well, and problems faced
- Thus you will be better positioned to select a methodology that is capable of providing valid answer to your research questions.





Literature Review

❖ Why Literature review

- Reasons for reviewing the literature are:

3. Broadening your knowledge base in your research area

- Ensure you read widely around the subject area in which you intend to conduct your research project
- It is important that you know:
 - what other researchers have found in regard to the same or similar questions.
 - what theories and models have been put forward, and
 - what gaps exist in the relevant body of knowledge.





Literature Review

❖ Why Literature review

- Reasons for reviewing the literature are:

4. Enabling you to contextualize your findings

- How do answers to your research questions compare with what others have found?
- What contribution have you been able to make to the existing body of knowledge?
- How are your findings different from those of others?
- It is important to place your findings in the context of what is already known in your field of enquiry.





Literature Review

❖ How to review the literature?

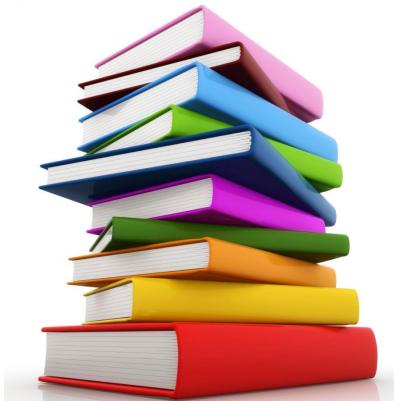
- There are four steps involved in conducting a literature review:
 1. Searching for the existing literature in your area of study
 2. Reviewing the selected literature.
 3. Developing a theoretical framework.
 4. Developing a conceptual framework.



Literature Review

- To search effectively for the literature in your field of enquiry,
 - it is imperative that you have at least some idea of the broad subject area and of the problem you wish to investigate
- There are three sources that you can use:

1. Books



2. Journals



3. Internet



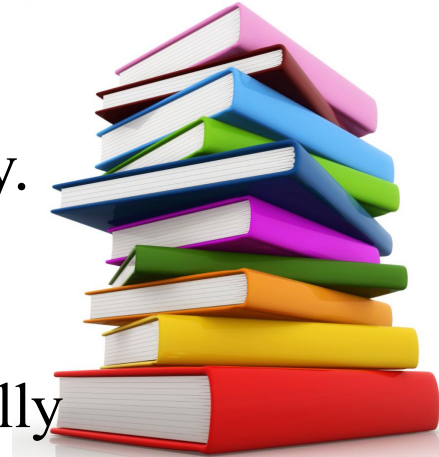


Literature Review

- There are three sources that you can use:

1. Books

- Books are a central part of any bibliography.
- The main advantage is
 - The material published in books is usually important and of good quality
 - The findings are integrated with other research to form a coherent body of knowledge
- The main disadvantage is
 - The material is not completely up to date, as it can take a few years between the completion of a work and its publication in the form of a book.



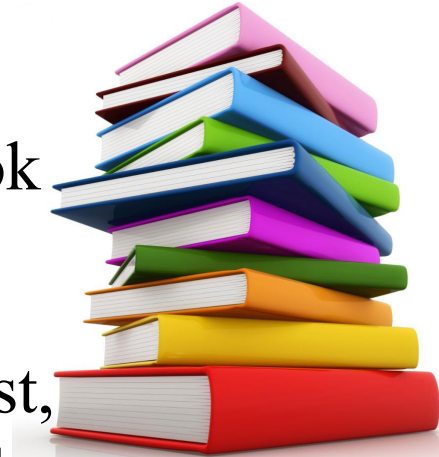


Literature Review

- There are three sources that you can use:

1. Books

- The best way to search for a book is to look at your library catalogues.
- Search for books in your area of interest, prepare a final list, locate these books in the libraries or borrow from other sources.
- Examine their contents to double-check that they really are relevant to your topic.
- If contents are not found to be relevant to your topic, delete it from your reading list.



- ## 2. Journals

-



Literature Review

- There are three sources that you can use:

2. Journals

- However, such papers are subject to size limitation (maximum number of pages)
 - Hence the materials offered in them do not usually offer an extensive coverage, a thorough experimentation or present an in depth analysis.
- Articles published in journals would offer a more in depth research study and analysis
- There is usually a gap of two to three years between the completion of a research project and the publication in a journal





Literature Review

- There are three sources that you can use:

2. Journals

- You need to prepare a list of journals for identifying literature relevant to your study
- Identify the journals you want to look at in more detail for your review of literature.
- Select the latest issues and examine its content page to see if there is an article of relevance to your research topic.
- If you feel a particular article is of relevance to you, read its abstract.
- Obtain a copy or prepare a summary and record it for reference for later use.





Literature Review

- There are three sources that you can use:

2. Journals

- Obtaining your own resources is determined by the availability.
- Journals that are available in an electronic format are known as e-Journals
- Your university should usually subscribe to some online research databases that offer a variety of publications (e-books, (e-)journals, conferences, proceedings, etc.).
- The online version of e-Journals can be accessible through:
 - I. Subscription II. Pay per view III. Open access



Literature Review

- There are three sources that you can use:

2. Journals

- Some examples are given below:



<http://scholar.google.com/>



<http://ieeexplore.ieee.org/>



<http://dl.acm.org/>



<http://www.elsevier.com/>



<http://www.springer.com/>



<http://www.scopus.com/>



<http://www.springeropen.com/>



Literature Review

- There are three sources that you can use:

3. Internet

- The Internet has become an important tool for finding published literature.
- An Internet search is carried out through search engines (Google, Yahoo, etc.)
- An Internet search basically identifies all material in the database of a search engine that contains the keywords you specify, either individually or in combination
- Most search facilities use Boolean logic, which allows three types of basic search “AND”, “OR” and “NOT”





Literature Review

- The resources mentioned above are scientifically and academically considered as acceptable.
- You should avoid using resources that are not authentic as they do not adhere to the standards that defines “research”
 - For example, not anything you find on Wikipedia is considered authentic
- Not anything you find published in some website without author references or suitable affiliation is considered acceptable.
- The value of your research depends on the value and quality of the resources used.



Literature Review

❖ How Reviewing the selected literature?

- After identifying books and articles as useful, the next step is to start reading them critically to pull together themes and issues that are associated.
- If you do not have a theoretical framework of themes in mind to start with, use separate sheets of paper for each article or book.
- Once you develop a rough framework, slot the findings from the material so far reviewed into that framework, using a separate sheet of paper for each theme of that framework.



Literature Review

❖ How Reviewing the selected literature?

- Read critically with particular reference to the following aspects:
 - Examine to what extent the findings can be generalized to other situations.
 - Notice where there are significant differences of opinion among researchers and give your opinion about the validity of these differences.
 - Ascertain the areas in which little or nothing is known the gaps that exist in the body of knowledge.



Literature Review

❖ How you writing up literature reviewing?

- Writing up the literature reviewed is to provide theoretical background to your study:
 - List the main themes that have emerged while reading literature
 - Convert them into subheadings. These subheadings should be precise, descriptive of the theme in question, and follow a logical progression.



Literature Review

❖ How you writing up literature reviewing?

- Writing up the literature reviewed is to provide theoretical background to your study:
 - Now, under each subheading, record
 - the main findings with respect to the theme in question,
 - highlighting the reasons for and against an argument if they exist, and
 - identify gaps and issues.



Literature Review

❖ How you writing up literature reviewing?

- The literature review is all about the work & studies made by others – NOT you
- You usually quote from these studies to indicate a certain point or focus on a certain perspective.
- You usually quote from these studies to indicate a certain point or focus on a certain perspective.
- Also indicate if these studies contradict or confirm a certain point



Literature Review

❖ How you writing up literature reviewing?

- All the resources you used must be listed in a section at the end of your research work (report, paper, project etc.).

- This section is usually known as the “References” section that requires a special format to list all the resources used depending on either publication requirements or purpose.

Bibliography

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Hai, Ambreen. (2000). “Border Work, Border Trouble: Postcolonial Feminism and the Ayah in Bapsi Sidhwa's *Cracking India*.” *Modern Fiction Studies*, 379-426.

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Yong Tan, Tai and Kudaisya, Gaynesh. *The Aftermath of Partition in South Asia*. London: Routledge, 2000.



Assignment

- Provide at **least 15 major areas** of computer science disciplines. For each area provide at **least 3 subareas**, and write simple definition and example for each one.
- Example:

Computer science	1. Network	Subarea 1	Simple definition & Example
		Subarea 2	definition & Example
		Subarea 3	definition & Example
	2. Area 2	Subarea 1	definition & Example
		Subarea 2	definition & Example
		Subarea 3	definition & Example

- Group (2-3) students, **NO handwriting, Submit Hardcopy**
- Deadline **12/04/2018**



Questions & Answers



THANK
YOU