



RESEARCH METHODOLOGY

Literature Review

Prof. Raghu B. A.

raghubarao@pes.edu

Dept. of Computer Science and Engineering

RESEARCH METHODOLOGY

Literature Review

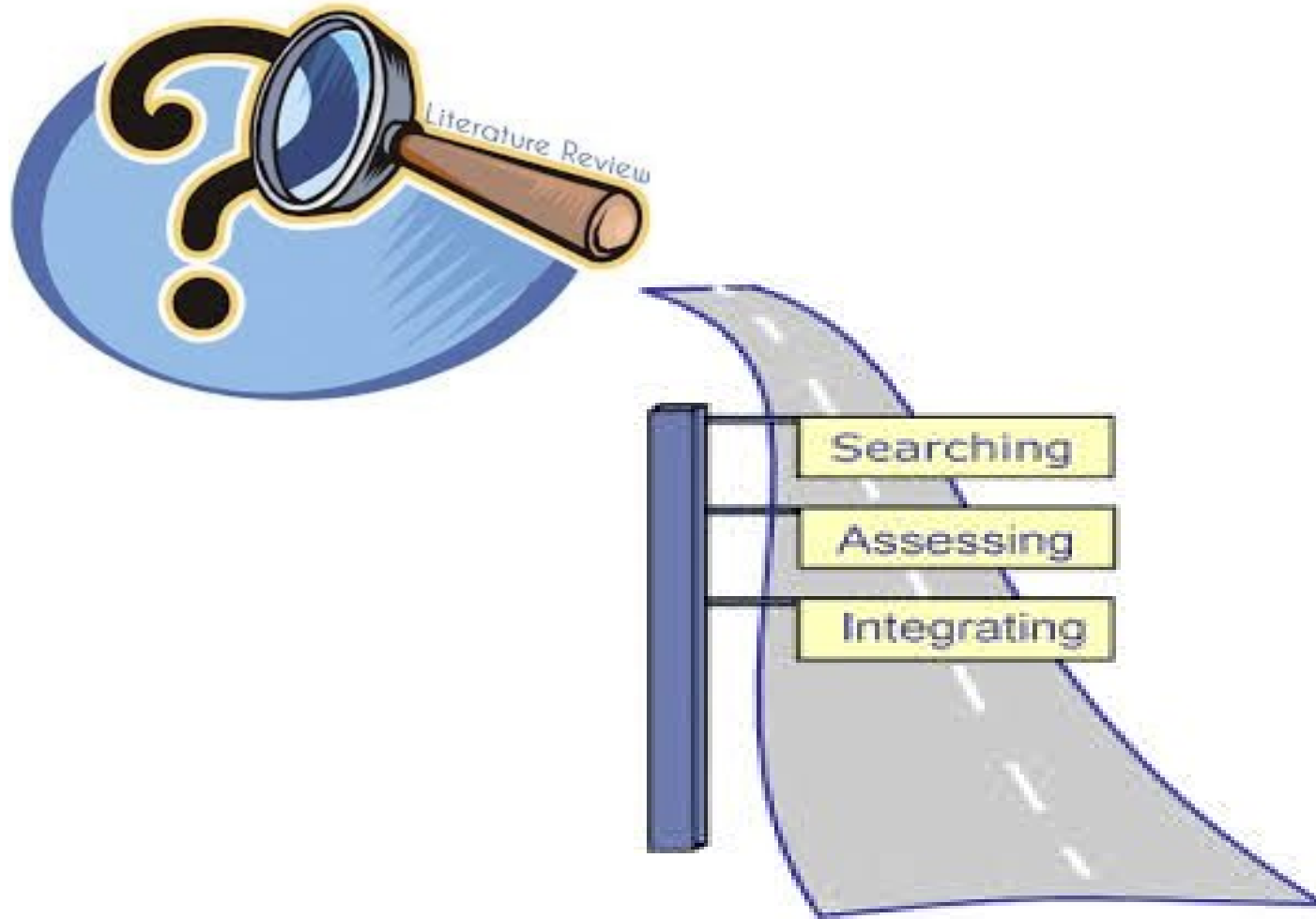
Raghu B. A.

Department of Computer Science and Engineering

Chapter Objectives:

- 1) Review of Literature (RoL)
 - What, Importance, Why/Purpose, Goal
- 2) Sources of Literature
- 3) Technique of Reviewing
- 4) Organization
- 5) Writing LR
- 6) Good LR Properties

RESEARCH METHODOLOGY : Literature Review



REVIEW OF LITERATURE (RoL)

A broad, comprehensive, in-depth, systematic, and critical review of scholarly publications.

A Literature Review

surveys, summarizes, and links together research (a.k.a., literature) in a given field

RESEARCH METHODOLOGY : Literature Review

RoL

- Important step in Res. Process; laborious but essential
- An account of what is already done/known about the issue
- Describe, summarize, evaluate.
- Clarify & integrate the content of primary reports

RESEARCH METHODOLOGY : Literature Review

What is Review of Literature?

It is a CRITICAL EVALUATION of available literature on the topic of research to be carried out

Provides an overview of the problem to be studied

Continued....

RESEARCH METHODOLOGY : Literature Review

What is Review of Literature?

- Effective evaluation of selected documents on a research topic.
- An essential part of the research process or may constitute a research project in itself.
- Is a critical synthesis of previous research.
- Leads logically to the research question.

RESEARCH METHODOLOGY : Literature Review

Importance of Review of Literature?

- Identification, development, refinement of RQ's
- Identification of gaps/inconsistencies
- Strength and weaknesses of designs/methods /instruments used in research work
- Development of plan – research methodology
- Development of Research Hypothesis

RESEARCH METHODOLOGY : Literature Review

Why Review of Literature?

Purpose

- A handy guide to a particular topic. Gives an overview or act as a stepping stone.
- Provide a solid background for investigation. Comprehensive literature of the field is essential to most studies.
- Keeps up to date with what is current in the field.
- Facilitates critical look at the literature (facts and views) that already exists in the area
- It demonstrates the relevance of the research

Continued....

RESEARCH METHODOLOGY : Literature Review

Why Review of Literature?

Purpose

For the chosen Research Problem, RoL Determines :

1. Design/Md. of study – Instruments, data collection, analysis
2. Replication needed
3. What is till date known
4. Gaps / inconsistencies & consistencies
5. Unanswered questions
6. Strengths / weaknesses
7. Refinement of research problem
8. Hypothesis
9. Justification

RESEARCH METHODOLOGY : Literature Review

Function of RoL

The literature review is a critical look at the existing research that is significant to the work that you are carrying out.

- To provide background information
- To establish importance
- To demonstrate familiarity
- To “carve out a space” for further research

RESEARCH METHODOLOGY : Literature Review

Goal of RoL

RoL allows:

- To demonstrate mastery over a subject
- To locate your area of research within the literature, such as “how does this fit in with everything else that has been written on this subject?”

RESEARCH METHODOLOGY : Literature Review

Primary and Secondary Sources

Primary source:

is written by a person(s) who developed the theory or conducted the research

Secondary source:

is written by a person(s) other than the individual who developed the theory or conducted the research

Reasons for using secondary sources:

1. Primary sources is literally NOT available
2. A secondary source can provide different ways of looking at an issue or problem

Secondary sources should not be overused

RESEARCH METHODOLOGY : Literature Review

Primary and Secondary Sources

Primary source: Example

An original qualitative on patient experiences in the ICU:

Feeling safe the psychosocial needs of ICU patients.

Hupcey, J. E. (2000).
Journal of Nursing Scholarship,
32:361-367
www.drjayeshpatidar.blogspot.com

Secondary source: Example

A literature review on patients experiences in the ICU:

Patient experiences of being in an intensive care unit

Stein-Parbury, J. & Mckinley,S. (2000) :
a select literature review.
American Journal of critical care, 9:20-27
www.drjayeshpatidar.blogspot.com

RESEARCH METHODOLOGY : Literature Review

Sources for RoL

- Electronic data-bases
- Journals
- Research Reports - thesis
- Books
- Conference Papers
- Magazines/newspapers
- Encyclopedias and dictionaries

When you read an article:

Questions to consider:

- Has the author clearly defined the problem/issue?
- How good is the study design?
- How valid are the results?
- Are there flaws in the logic of the discussion?
- What problems has the author avoided or ignored?

RESEARCH METHODOLOGY : Literature Review

TECHNIQUE

OF REVIEWING OF LITERATURE

Key words / refined / focused

Shortlist articles – basis, ABSTRACT

Data base / s

Latest first & backwards - year

Table – authors, place, year, Journal

Methods (Expt. Details)

Data collection, analysis

Findings, results, inference

Organize (acc. to time / theme / method)

Transition – linking

Intro. - Body – Conclusion (justify)





Comprehensive, Cohesive, Concise Write-up

B E F O R E W R I T I N G R o L

Sketch of Scheme
Organize

Organize

Consider organization

-  You've got a focus, and you've narrowed it down to a **thesis statement**.
-  Now what is the most **effective** way of presenting the information?
-  What are the most important **topics, subtopics**, etc., that your review needs to include?
-  And in what **order** should you present them?

How to organize studies

Chronological

- By publication date
- By trend

Thematic

- A structure which considers different themes

Methodological

- Focuses on the methods of the researcher,
e.g., qualitative versus quantitative approaches

RESEARCH METHODOLOGY : Literature Review

What should you write?

- 🖐️ the accepted facts in the area
- 🖐️ the popular opinion
- 🖐️ the main variables
- 🖐️ the relationship between concepts and variables
- 🖐️ shortcomings in the existing findings
- 🖐️ limitations in the methods used in the existing findings
- 🖐️ the relevance of your research
- 🖐️ suggestions for further research in the area.

RESEARCH METHODOLOGY : Literature Review

Before writing the literature review:

 Similar to primary research, development of the literature review requires four stages:

 **Problem formulation**—which topic or field is being examined and what are its component issues?


 **Literature search**—finding materials relevant to the subject being explored


 **Data evaluation**—determining which literature makes a significant contribution to the understanding of the topic


 **Analysis and interpretation**—discussing the findings and conclusions of pertinent literature

Continued....

Before writing the literature review:

 Introduction - Quick idea of central theme
It serves as a kind of map

 The body - Contains discussion of sources
How key point are organized?

 Conclusion - Sum up the main findings
Related to the aims of the current study
A coherent b.g. to current study.

AFTER WRITING RoL

Read for coherence

Logical

Use critiquing Criteria - Checklist

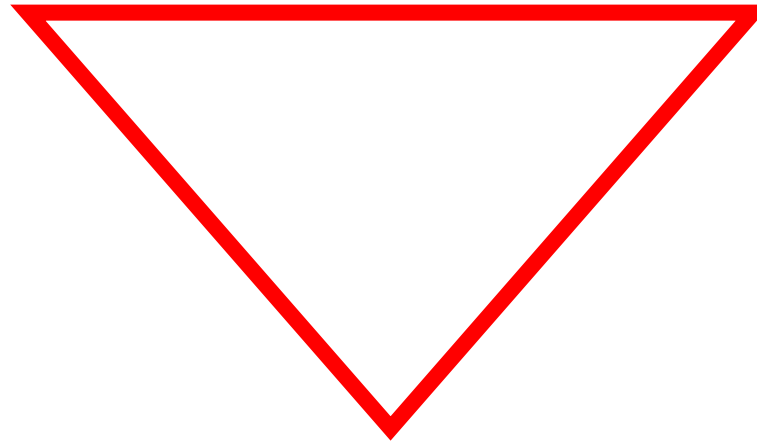
When you read your RoL:

CRITIQUING CRITERIA

1. Uncover gaps, inconsistencies & consistencies
2. Relevant concepts & variables included
3. Reveal components of study of design (Expt.)
4. Strengths, weaknesses & conflicts depicted (in rel. to current area)
5. Conceptual & Data based literature included
6. Summary and synthesis done (Integration)
7. Follow a logical sequence (Time, theme, method, trend..)
8. Signify what to be researched (Justification & lead to HYPOTHESIS)

Organization of literature review

- **A general organization looks like a funnel**
 - Broader topics
 - Subtopics
 - Studies like yours



RESEARCH METHODOLOGY : Literature Review

Points to write review of literature

Be specific & be succinct

State findings + Methodologies briefly; No place for in-depth analysis nor long quotes

Be selective:

Narrow information; most important points

Focus current topics:

Emphasize current work

Reference citation:

Any references cited in the literature review must be included in the bibliography.

RESEARCH METHODOLOGY : Literature Review

Points to write review of literature

Sources of evidences:

Researchers should ensure the reliability of the sources of the evidence or other information – if they are from author's own experiments, surveys, historical records, government document.

Reference citation:

Any references cited in the literature review must be included in the bibliography.

RESEARCH METHODOLOGY : Literature Review

A Good Literature Review is:

Focused - The topic should be narrow. Present ideas and report on studies that are closely related to topic.

Concise - Ideas should be presented economically

Logical - logical progression from one idea to the next

Developed - Don't leave the story half told

Integrative - What commonality among articles? How are some studies different?

Your paper should stress how all the studies reviewed contribute to your topic.

Current - Your review should focus on work being done on the cutting edge of your topic



THANK YOU

RESEARCH METHODOLOGY

Literature Review

Prof. Raghu B. A.

raghubarao@pes.edu

Dept. of Computer Science and Engineering