

RESEARCH METHODOLOGY

UG

Literature Review

By H. Halwiindi, *PhD*
UNZA
SoPH

Out-line

1. Purpose
2. Process
3. Sources
4. Writing LR

What is a “Literature Review”?

- “...a literature review surveys scientific articles, books, journals, dissertations and other sources relevant to a particular issue, area of research, or theory, providing a description, summary, and critical evaluation of each work.”



1. PURPOSE



a. Brings clarity and focus to your research problem

- » Helps you understanding the subject
- » Helps you to conceptualize your research problem
- » Helps identifying relationships with existing body of knowledge



b. Broadens your knowledge base in your research area

- » Current state of knowledge
- » where the gaps are
- » Current trends and debates
- » Hot topics



c. Contextualize your findings

» How your results fit into the existing body of knowledge

» How your results differ from others

» Avoid duplication



d. Improve your methods

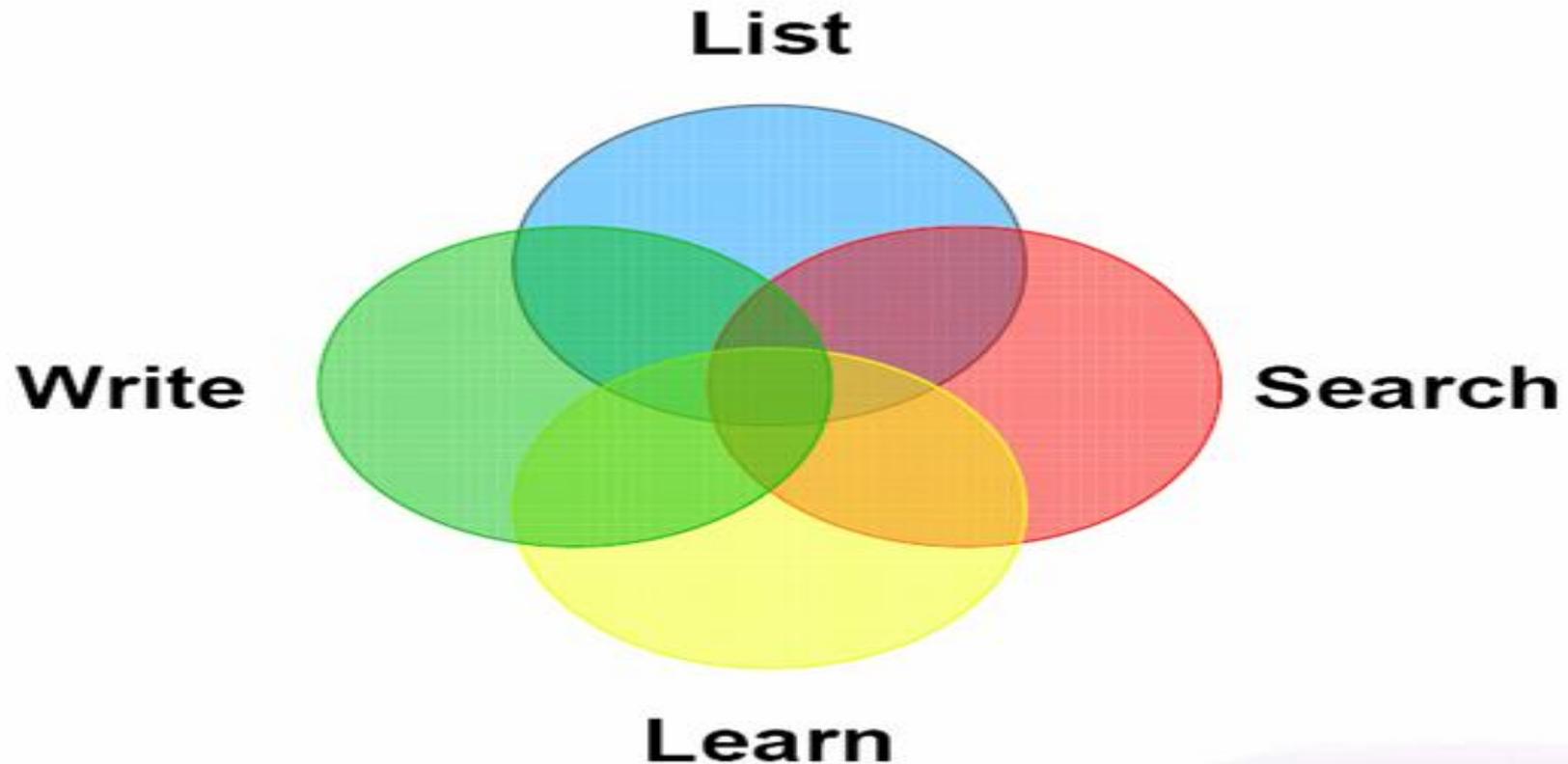
- » How the others have approached the problem
- » Which methods others have used and faced difficulties
- » Identify new ways to interpret



2. THE REVIEW PROCESS



Literature Review as a Process



1. LISTING

- Which topic or field is being examined?
- What questions need to be answered before you conduct your study?
- What are its component issues?

◆ **Identify a set of key words**



2. SEARCH

Find materials relevant to the subject being explored.

- Use key words to search library/data bases.
- Select 40 - 50 articles related to topic to give you a first view of topic.



3. LEARN

Determining which literature makes a significant contribution to the topic.

- Look at the abstracts.
- Skim through the articles.
- Identify the useful literature.
- Begin designing the literature map.



3. LEARN.....

- Identify literature contradictions.
- Identify literature agreements.
- Identify gaps in literature.
- Establish your position.
- Draft summaries of most relevant articles.
- Arrange the literature thematically.
- Develop a literature map.
- Abstract the studies.
- Give a summary of major themes, identifying areas that need further research.

3. SOURCES OF LITERATURE



Books

- a good starting point from which to find explore further more detailed and up-to-date sources of information.
- Tend to be less up-to-date, as it takes longer for a book to be published than for a journal article.

Journal articles

These are good sources:

- Peer reviewed.
- up-to-date information.
- relatively concise.
- up-to-date format for research.



Conference proceedings

- Provide the latest research (research that has not been published).
- Helpful in providing information about people in different research areas, and so can be helpful in tracking down other work by the same researchers.

Government/corporate reports

- Their published findings can provide a useful source of information:
 - Statistics
 - Priority areas

Sources of Literature (cont.)

Theses and dissertations

Useful sources of information:

- Formats
- Guidance on scope

Disadvantage:

- the student research may not be an experienced researcher and therefore you might have to treat their findings with more caution than published research.

ONLINE SOURCES

- Technical societies

The image shows a screenshot of the IEEE Xplore website. The top navigation bar includes links for Home, Login, Logout, Access Information, Alerts, Purchase History, Cart, Sitemap, and Help. Below this, there's a search bar with radio buttons for 'All Titles', 'IEEE Titles', and 'IET Titles'. A search box is present with a 'keyword' label and a search button. Below the search bar, there's a list of publications starting with the letter 'E', with a '+]' symbol to view a publication's title history. The list includes titles like 'Packaging, IEEE Transactions on', 'and Electronic Systems Magazine, IEEE', 'and Electronic Systems, IEEE Transactions on', 'and Navigational Electronics, IEEE Transactions on', 'IEEE Transactions on', 'the History of Computing, IEEE', 'and Propagation Magazine, IEEE', 'and Propagation, IEEE Transactions on', 'and Wireless Propagation Letters, IEEE', 'superconductivity, IEEE Transactions on', 'peech, and Language Processing, IEEE Transactions on', 'Control, IEEE Transactions on', and 'on Science and Engineering, IEEE Transactions on'.

On the right side, there's a preview of a document titled 'A Petri Net-Based Heuristic Algorithm for Realizability of Target Refining Schedule for Oil Refinery' by Naiqi Wu, MengChu Zhou, and Feng Ch. The document is from 'IEEE TRANSACTIONS ON AUTOMATION SCIENCE AND ENGINEERING, VOL. 5, NO. 4, OCTOBER 2008'. The abstract discusses discrete manufacturing scheduling. A 'List of symbols' table is also visible on the right side of the document preview.

Symbol	Meaning
COT	Crude oil type
C_j	Capacity of tank j
C_{jcap}	Capacity of a j th tank
D	Destination to which crude oil is to be delivered
$f_{d,kt}$	Flow rate for d th destination from tank k
f_{kt}	Flow rates of tank k to tank t
$f_{kt,kt}$	Flow rates for tank k to tank t
FT	Crude oil feed
FT_{kt}	t th FT for distillation column k
f_{kt}^{min} and f_{kt}^{max}	Minimal and maximal flow rates of a pipeline
$(C_{kt})^{min}$ and $(C_{kt})^{max}$	Minimal and maximal capacities of a pipeline
$(H_{kt})^{min}$ and $(H_{kt})^{max}$	Minimal and maximal flow rates for tank k to tank t
J	Set of tanks
K	Set of distillers
$K_i(p_{kt}, \mu_c)$	Places for tank k to tank t
M	Marking of a Petri net
$M(p, \varphi)$	Number token in place p of marking M
OP	Operation

ONLINE SOURCES

Google scholar

You Search Images Videos Maps News Shopping Mail More ▾

Google scholar collaborative networks Search Advanced Scholar Search

scholar Articles and patents ▾ anytime ▾ include citations ▾ Create email alert

Collaborative networks as determinants of knowledge diffusion patterns [\[PDF\] from inseac](#)
Singh - Management science, 2005 - JSTOR
his paper examines whether interpersonal **networks** help explain two widely documented attempts of knowledge diffusion:(1) geographic localization of knowledge flows, and (2) concentration of knowledge flows within firm boundaries. I measure knowledge flows ...
[Cited by 357](#) - [Related articles](#) - [Servicos@b-on](#) - [All 12 versions](#)

Collaborative networks: A new scientific discipline [\[PDF\] from wustl.edu](#)
M Camarinha-Matos... - Journal of Intelligent ..., 2005 - Springer
[Texto Integral@t](#)
Collaborative networks manifest in a large variety of forms, including virtual organizations, virtual enterprises, dynamic supply chains, professional virtual communities, **collaborative** virtual laboratories, etc. A large body of empiric knowledge related to **collaborative** ...
[Cited by 196](#) - [Related articles](#) - [sfx@b-on](#) - [BL Direct](#) - [All 21 versions](#)

Inside collaborative networks: Ten lessons for public managers [\[PDF\] from eiu.edu](#)
Agranoff - Public Administration Review, 2006 - Wiley Online Library
[Texto Integral@t](#)
Correspondence: Robert Agranoff is a professor emeritus at the School of Public and Environmental Affairs, Indiana University–Bloomington, and a professor at the Instituto Universitario Ortega y Gasset in Madrid, Spain. In 2005, he received the Daniel Elazar ...
[Cited by 159](#) - [Related articles](#) - [sfx@b-on](#) - [BL Direct](#) - [All 7 versions](#)

Relationship marketing and collaborative networks in service organizations [Texto Integral@t](#)
W Cravens... - International Journal of Service ..., 1994 - emeraldinsight.com
Abstract: The development of **collaborative** network structures is an increasingly significant issue in the services industry. These interorganizational relationships are formed to gain flexibility, obtain needed skills and resources, and achieve operating efficiencies. ...
[Cited by 109](#) - [Related articles](#) - [sfx@b-on](#) - [BL Direct](#) - [All 4 versions](#)

The importance of diverse collaborative networks for the novelty of product innovation [Texto Integral@t](#)
Nieto... - Technovation, 2007 - Elsevier
Competition today is driving firms to introduce products with a higher degree of novelty. Consequently, there is a growing need to understand the critical success factors behind more novel product innovations. This paper theoretically and empirically analyzes the role ...
[Cited by 125](#) - [Related articles](#) - [All 3 versions](#)

Collaborative networks
Camarinha-Matos... - Knowledge Enterprise: Intelligent ..., 2006 - Springer
Collaborative networks show a high potential as drivers of value creation. The materialization of this potential however requires further progress in understanding these organizational forms and the underlying principles of this new paradigm. As a contribution ...
[Cited by 94](#) - [Related articles](#) - [sfx@b-on](#) - [BL Direct](#) - [All 6 versions](#)

Writing a literature review



Three components of literature review section

- ◆ The introduction
- ◆ The body
- ◆ The conclusion



Writing the Introduction

- » **Define** or identify the general topic, issue, or **area of concern**, thus providing an appropriate context for reviewing the literature.
- » Point out **overall trends** in what has been published about the topic; or conflicts in theory, methodology, evidence, and conclusions; or gaps in research
- » Establish the **writer's reason** (point of view) for reviewing the literature; explain the criteria to be used in analyzing and comparing literature



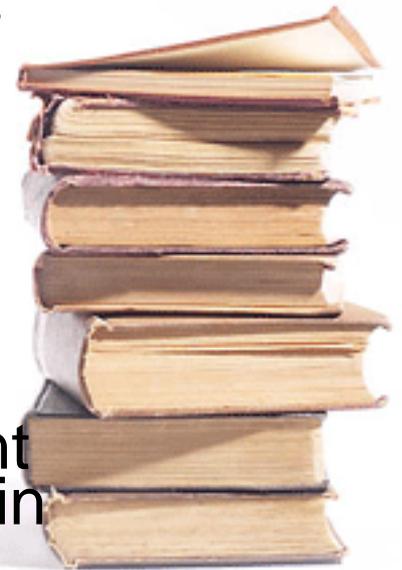
Writing the Body

- ❑ Group research studies and other types of literature according to common denominators such as:
 - ✓ qualitative versus quantitative approaches
 - ✓ conclusions of authors,
 - ✓ specific purpose or objective, etc.
- ❑ Summarize & synthesize individual studies
- ❑ Make comparisons and analyses.



Writing the Conclusion

- » Summarize major contributions of significant studies to the body of knowledge under review.
- » Evaluate the current "state of the art" pointing out:
 - major methodological flaws or gaps in research,
 - inconsistencies in theory and findings,
 - and areas or issues pertinent to future study.
- » Conclude by showing why it is important to conduct your study, or what your main questions are (**rationale**)



REFERENCING STYLES

» **There are several referencing styles available**

Examples:

– **Harvard style -**

<http://webhost.bridgew.edu/ebrush/CH135%20PDF/Lit%20Cited%20Guide.pdf>

– <http://www.lib.monash.edu.au/tutorials/citing/harvard.html>

– **Chicago style -**

<http://library.osu.edu/sites/guides/chicagogd.php>

» **A collection of styles and other materials -**

<http://lib.jcu.edu/page/14774>

<http://www.library.american.edu/subject/citation.html>

» <http://www.newcastle.edu.au/service/library/guides/referencing.html>

» **Conferences and journals usually provide their own style.**



THE END

