

# A Guide to Writing the Dissertation Literature Review

ECON04SEC2

30/04/2021

# Introduction

- Faulty literature can derail a dissertation.
- A researcher cannot perform significant literature review without first understanding the literature in the field.

# Why write a Literature Review?

- Demonstrate the author's knowledge
  - Field of study, vocabulary, theories, key variables, methods, and history.
- To know about influential researchers and research groups in the field.
- Others:
  - Delimit the research problem.
  - Seek new lines of inquiry.
  - Gain methodological insights.

# Why write a Literature Review?

- Additional reasons:
  - Distinguish what has been done from what needs to be done.
  - Discovering relevant variables for the model/topic.
  - Framework for relating new findings to previous findings.

# Taxonomy of Literature Reviews

- Cooper's (1988) Taxonomy of Literature Reviews.
- LR can be classified according to 5 characteristics:
  - 1 Focus
  - 2 Goal
  - 3 Perspective
  - 4 Coverage
  - 5 Organisation and Audience

- Four potential foci:
  - ① research outcomes,
  - ② research methods,
  - ③ theories,
  - ④ practices or applications.

## Focus: *research outcomes*

- Focus on *research outcomes* are the most common.
- LR is - '*information analysis and synthesis, focusing on findings and not simply bibliographic citations, summarizing the substance of the literature and drawing conclusions from it*'

## Focus: *research methods*

- **Research methods** is the chosen field.
- Finding the key variables, measures and methods of analysis.
- Identify methodological strengths and weaknesses.
- Examine how research practices differ across groups, times, or settings.



## Focus: *review of theories*

- What theories already exist, relationship between them.
- Theoretical review can help establish a lack of theories or reveal that the current theories are insufficient.

## Focus: *goal*

- Goal to integrate and generalise findings across units, treatments, outcomes, and settings; to resolve a debate within a field.
- Meta-analysis goals
  - Integrate quantitative outcomes across studies.
  - Critically analyze previous research, identify central issues, or explicate a line of argument within a field.

# Foculs: *organisation*

- Common formats to organise a LR
  - ① Historical format
    - Chronological ordering
    - Emphasis on the progression of research methods or theories.
  - ② Conceptual format
    - Organized according to the various theories in the literature.
  - ③ Methodological format
    - Organized methodologically, as in an empirical paper (i.e., introduction, method, results, and discussion).

# How to conduct a LR

- Cooper 1984 describes the stages as
  - 1 Problem formulation
  - 2 Data collection
  - 3 Data evaluation
  - 4 Analysis and interpretation
  - 5 Public presentation
- The stages for conducting and reporting a literature review parallel the process for conducting primary research.
- Instead of human participants, for example, the units in a literature review are the articles that are reviewed.

# How to conduct a LR: *problem formulation*

- Reviewer decides what questions the LR will answer.
  - Literature review questions - questions that can be answered by reviewing the secondary research)
  - Empirical research questions - questions that can be answered only through primary research.

## How to conduct a LR: *problem formulation*

- Determine criterion to dictate the inclusion or exclusion of an article.

Goal	Problem.Formulation
Integrate research outcomes	From the previous literature, what is the effect of intervention X on outcomes Y and Z?
Critically analyze the research methods	What research methods have been used in the past to investigate phenomenon X? and What are the methodological flaws of those methods?

## How to conduct a LR: *problem formulation*

- Determine the criterion for inclusion or exclusion.
- Example from **Randolph, J. J. (2007b). *Meta-analysis of the effects of response cards on student achievement, participation, and intervals of off-task behavior*. Journal of Positive Behavior Interventions, 9(2), 113-128.**

Studies were included in the quantitative synthesis if they met each of the following criteria:

- 1 The study reported means and standard deviations or provided enough information to calculate means and standard deviations for each condition.
- 2 The use of write-on response cards, preprinted response cards, or both was the independent variable.
- 3 Voluntary single-student oral responding (i.e., hand raising) was used during the control condition.

## How to conduct a LR: *problem formulation*

Studies were included in the quantitative synthesis if they met each of the following criteria:

- ④ The study reported results on at least one of the following dependent variables: participation, quiz achievement, test achievement, or intervals of behavioral disruptions.
- ⑤ The report was written in English.
- ⑥ The data from one study did not overlap data from another study.
- ⑦ The studies used repeated-measures-type methodologies.
- ⑧ For separate studies that used the same data (e.g., a dissertation and a journal article based on the same dataset), only the study with the most comprehensive reporting was included to avoid the overrepresentation of a particular set of data. (pp. 115-116)



# How to conduct a LR: *data collection*

- Collect an exhaustive, semi-exhaustive, representative, or pivotal set of relevant articles.
- The researcher must accurately document how the data were collected.
- Describe the data collection procedure.
- Electronic search of academic databases and the Internet.
  - Accurate records must be kept of the date of each search, the databases searched, the key words and key word combinations used, and the number of records resulting from each search.

## How to conduct a LR: *data collection*

- Electronic searches lead to only about ten percent of the articles.
- For the remaining 90%, search the references of the articles that were retrieved, determine which of those seem relevant, find those, read their references, and repeat the process until a point of saturation is reached—a point where no new relevant articles come to light.
- When electronic and reference searching is exhausted, the reviewer is advised to share the list of references with colleagues and experts in the field to determine if they detect any missing articles.

# How to conduct a LR: *data evaluation*

- Extract and evaluate the information in the articles that met the inclusion criteria.
- Documentation is usually done in a coding book.
- A coding book is an electronic document, such as a spreadsheet, or a physical form on which data are recorded for each article.

# How to conduct a LR: *data evaluation*

- Code sheet example

Author.s.	Date	Title	Y.variable	X.variables	Data.sources

Methodology	Sample.size	Country.Region	Major.findings

Also see Methodological Review Coding Book from **Randolph, J. J. (2007a). *Computer science education research at the crossroads: A methodological review of computer science education research: 2000-2005.* (Doctoral dissertation, Utah State University, 2007).**

## Reference

Randolph, Justus (2009) "A Guide to Writing the Dissertation Literature Review," *Practical Assessment, Research, and Evaluation*: Vol. 14 , Article 13. DOI: <https://doi.org/10.7275/b0az-8t74> Available at: <https://scholarworks.umass.edu/pare/vol14/iss1/13>