

LITERATURE REVIEW - PLANNING, PREPARATION, AND PRESENTATION*

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Introduction

Literature review is an essential activity for any type of research work. It is mandatory before the actual research starts and can continue in parallel with the actual research theme. Even at the time of completing the research an update of the literature review will prove to be beneficial and helps in consolidating the research findings. Because many people across the world might be carrying out the research work on similar or same type of topics, it is imperative that as each day passes the literature gets enriched. As quoted by Pautasso (2013), reviewing the literature requires the ability to juggle multiple tasks, from finding and evaluating relevant material to synthesizing information from various sources, from critical thinking to paraphrasing, evaluating, and citation skills.

In this module the following aspects are addressed:

- What is literature review?
- Why literature review is conducted?
- Components of literature review
- Types of literature review
- Mistakes Commonly Made in Reviewing Research Literature
- Checklist for literature review

What is literature review?

Any research work needs to ensure that the research problem or the research topic has something new to offer and is certainly not expected to duplicate the work already done. However, what constitutes "new" might be seriously debated. Hence a thorough literature review can help in establishing the newness in a given research work.

A literature review is a “critical analysis of a segment of a published body of knowledge through summary, classification, and comparison of prior research studies, reviews of literature, and theoretical articles” (University of Wisconsin Writing Center). Do not confuse a literature review with an annotated bibliography.

Machi and McEvoy (2009) provide another appropriately complex definition of a literature review, as follows: A literature review is a written document that presents a logically argued Case founded on a comprehensive understanding of the current state of knowledge about a topic of study.

How to formally analyze and interpret the selected literature are the two important components of the literature review process. According to Fink (2009), “A research literature review is a systematic, explicit, and reproducible method for identifying, evaluating, and synthesizing the existing body of completed and recorded work produced by researchers, scholars, and practitioners”

Why literature review is conducted?

“A researcher cannot perform significant research without first understanding the literature in the field” (Boote & Beile, 2005). Conducting a literature review is a means of demonstrating an author’s knowledge about a particular field of study, including vocabulary, theories, key variables and phenomena, and its methods and history. Conducting a literature review also informs the student of the influential researchers and research groups in the field. Finally, with some modification, the literature review is a “legitimate and publishable scholarly document” (LeCompte & colleagues, 2003).

Gall, Borg, and Gall (1996) argue that the literature review plays a role in: delimiting the research problem, seeking new lines of inquiry, avoiding fruitless approaches, gaining methodological insights, identifying recommendations for further research, and seeking support for grounded theory.

Hart (1998) contributes additional reasons for reviewing the literature, including: • distinguishing what has been done from what needs to be done, • discovering important variables relevant to the topic, • synthesizing and gaining a new perspective, • identifying relationships between ideas and practices, • establishing the context of the topic or problem, • rationalizing the significance of the problem, • enhancing and acquiring the subject vocabulary, • understanding the structure of the subject, • relating ideas and theory to applications, identifying the main methodologies and research techniques that have been used, and • placing the research in a historical context to show familiarity with state-of-the-art developments. Another purpose for writing a literature review not mentioned above is that it provides a framework for relating new findings to previous findings in the discussion section of a dissertation. Without establishing the state of the previous research, it is impossible to establish how the new research advances the previous research. Cooper (1988) suggests that literature reviews can be classified according to five characteristics: focus, goal, perspective, coverage, organization, and audience.

Onwuegbuzie et al. (2010) identified 23 benefits that can be derived from conducting a quality review of the literature, such as the following: distinguish what has been undertaken and what needs to be undertaken, identify variables that are relevant to the topic, identify relationships between theory/concepts and practice, distinguish exemplary research, avoid unintentional and unnecessary replication, identify the main research methodologies and designs that have been utilized, identify contradictions and inconsistencies, and identify strengths and weaknesses of the various research approaches that have been utilized.

How to conduct literature review?

- (1). Fraenkel and Wallen (2006) present the following "six steps involved in a literature search": Define the research problem as precisely as possible.
- (2). Look at relevant secondary sources.
- (3). Select and peruse one or two appropriate general reference works.
- (4). Formulate search terms (key words or phrases) pertinent to the problem or question of interest.
- (5). Search the general references for relevant primary sources.
- (6). Obtain and read relevant primary sources, and note and summarize key points in the sources.

From the literature review, researchers obtain a complete picture of “what has been conducted before, the inferences that have emerged, the inter-relationships of these inferences, the validity of these inferences, the theoretical and practical implications stemming from these inferences, and the important gaps in the literature” (Onwuegbuzie et al., 2010), as well as positions them “to select the most appropriate methodologies for their studies by allowing them to identify the strengths and weaknesses of approaches used in previous studies”

Two forms of literature review

Analysis of literature takes one of two forms:

- (1). within-study literature analysis or
- (2). between-study literature analysis (Onwuegbuzie et al., 2010).

Both types of analyses are essential and should be conducted in all literature reviews, A within-study literature analysis involves analyzing the contents of a specific work. In its most rigorous and comprehensive form, a within-study literature analysis does not merely involve analyzing the findings of a study or the major premise used in a non-empirical work. Rather, optimally, it involves analyzing every component of the work, including the title, literature review section, conceptual framework/theoretical framework, procedures used, results section, and discussion section. In contrast, a between-study literature analysis involves comparing and contrasting information from two or more literature sources. Although the most common information to compare is the findings among empirical works, optimally, every component, or at least multiple components, of a work should be compared with every/multiple components from other works.

Types of review

- (1). Narrative Review
 - a. Selective review of the literature that broadly covers a specific topic.
 - b. Does not follow strict systematic methods to locate and synthesize articles.
- (2). Systematic Review
 - a. Utilizes exacting search strategies to make certain that the maximum extent of relevant research has been considered.
 - b. Original articles are methodologically appraised and synthesized.
- (3). Meta-analysis
 - a. Quantitatively combines the results of studies that are the result of a systematic literature review.
 - b. Capable of performing a statistical analysis of the pooled results of relevant studies.

Presenting the literature review

It is usually unacceptable to see every paragraph beginning with the name of a researcher. You should organize the literature review so that it presents themes or identifies trends, including relevant theory. You are trying to list material published that you have synthesized and evaluated according to your problem statement (thesis or research question). Remember a review of the literature should not be a loose collection of citations and miscellaneous facts that show coverage but little understanding. You must actively think about, argue with, praise, and otherwise react to your reading. Those studies closely related to the problem should include, in the review, a summary of the study, an analysis of the study, and a statement of how the study relates to the research problem. Use an overall introduction and conclusion to state the scope of your coverage and to formulate the question, problem, or concept that your chosen material illuminates.

Mistakes Commonly Made in Reviewing Research Literature

To help the reviewer avoid mistakes in conducting a literature review, some of the most common mistakes are listed below. Gall, Borg, and Gall (1996) claim that the most frequent mistakes made in reviewing the literature are that, the researcher:

- a) does not clearly relate the findings of the literature review to the researcher's own study;
- b) does not take sufficient time to define the best descriptors and identify the best sources to use in review literature related to one's topic;
- c) relies on secondary sources rather than on primary sources in reviewing the literature;
- d) uncritically accepts another researcher's findings and interpretations as valid, rather than examining critically all aspects of the research design and analysis;
- e) does not report the search procedures that were used in the literature review;
- f) reports isolated statistical results rather than synthesizing them by chi-square or meta-analytic methods; and
- g) does not consider contrary findings and alternative interpretations in synthesizing quantitative literature.

Why your literature review is not good?

A literature review may fail because of several reasons as given below:

- ◆ You read and do not keep notes. Writing helps you to understand and find relationships between the reference you are reading and your problem. (Language Center Asian Institute of Technology, (n.d))
- ◆ You do not keep bibliographic information. Always keep bibliographic information in your notes. You will be required to have a reference section. (Language Center Asian Institute of Technology, n. d.)
- ◆ You do not clearly relate the findings of the literature review to the researcher's own study. (Muirhead, 2004; Blum & Muirhead, 2008; Randolph, 2009)
- ◆ You do not take sufficient time to define the best descriptors and identify the best sources to use when reviewing literature related to one's topic. (Randolph 2009; Muirhead, 2004)
- ◆ You rely on secondary sources rather than on primary sources in reviewing the literature. (Blum & Muirhead, 2005; Randolph, 2009)
- ◆ You uncritically accept another researcher's findings and interpretations as valid. You should examine critically all aspects of the research design and analysis. (Randolph 2009; Muirhead, 2004)
- ◆ You as the author do not report the search procedures that were used in the literature review. (Muirhead, 2004; Blum & Muirhead, 2005; Randolph, 2009)
- ◆ You use reference reports as isolated statistical results rather than synthesizing them by chi-square or meta-analytic methods. (Randolph, 2009; Fink, 2009)
- ◆ Your literature review does not consider contrary findings and alternative interpretations in synthesizing qualitative data/literature. (Fink, 2009; Bloomberg & Volpe, 2008)

Literature Review Organizer

This simple step helps to carry out a better review. Develop a systematic recording of data for each of the paper, under the following headings:

- (1). Title:
- (2). Problem/Scope:
- (3). Methods/Procedures:
- (4). Findings//Analysis/Findings//Results and Discussion:

- (5). Conclusion(s)/Results, Discussion, Implications, Recommendations
- (6). Relatedness/Significance to Researcher's Problem:
- (7). Integration to Researcher's Problem
- (8). Usefulness to Researcher's Problem:

Literature Review Organizer should be used for each source reviewed for incorporation into a review of related literature.

Demystifying the Literature Review

A guide developed by Cooper (1988) provides an overview of the literature review and its place in a research project, thesis, or dissertation, and demonstrates some strategies and resources for finding the information you need while using the library. The research and writing process is iterative, as you gain understanding, you'll return to earlier steps to rethink, refine, and rework your review. This helpful guide for literature review is depicted in the form of a chart titled as Cooper's taxonomy of literature reviews. This chart lists some questions you should ask yourself before beginning a Literature Review. For example, the first row, "Focus" is asking what outcomes, methods, theories or practices your literature review is about. Are you tracking the outcomes of previous studies, the methods that have been used over time, or something else?

Cooper's Taxonomy of Literature Reviews

| Characteristic | Categories |
|--|---|
| What is the primary focus of attention? | Research outcomes Research methods Theories Practices or applications |
| What is the overall goal of the synthesis? | Integration Generalization Conflict resolution Linguistic bridge building Criticism Identification of central issues |
| What is the perspective on the literature? | Neutral representation Espousal of position |
| How is the coverage of the literature defined? | Exhaustive Selective criterion Representative Central or pivotal |
| How will the review be organized? | Historical Conceptual Methodological |
| Who is the intended audience or reader? | Specialized scholars General scholars Practitioners or policy makers General public |

You don't need a definitive answer to all these questions, but they will help focus your research. You can consider the following questions:

- ◆ Which of these characteristics seem to fit within your field?
- ◆ What would you like your Literature Review/thesis/dissertation to accomplish?
- ◆ Is your aim to influence theory within your field, or have specific application?

- ◆ Who is your audience?
- ◆ Does your field necessitate a particular perspective?
- ◆ How does your field typically organize its findings?

Checklist to be Included in Literature Review

- (1). Is the purpose of the review (preliminary or exhaustive) indicated?
- (2). Are the parameters of the review reasonable? Why were certain bodies of literature included in the search and others excluded?
- (3). Is primary literature emphasized in the review and secondary literature, if cited, used selectively?
- (4). Are most of the sources from reputable, refereed journals?
- (5). Are recent developments in the literature emphasized in the review?
- (6). Is the literature relevant to the problem?
- (7). Is complete bibliographic data provided for each source cited?
- (8). Summary and Analysis of Literature
- (9). Is the review organized by topics or ideas, not by author?
- (10). Is the review organized logically?
- (11). Are major studies discussed in detail and the actual findings cited?
- (12). Are minor studies with similar results or limitations summarized as a group?
- (13). Is there adequate analysis or critique of the methodologies of important studies so that the reader can determine the quality of previous research?
- (14). Are studies compared and contrasted and conflicting or inclusive results noted?
- (15). For some basic and applied studies and qualitative research, is the conceptual framework or theory that guides the study explained?
- (16). Relationship to Current Study
- (17). Does the summary provide an overall interpretation and understanding of prior research?
- (18). Does the review of major studies relate explicitly to the research problem and methods?
- (19). Do the methodological analyses provide a rationale for the design to follow?
- (20). Does the review of the literature help establish the significance of the research?

Weaknesses in the literature review:

Based on a study by Alton-Lee (1998):

Inadequate literature reviews (50.0%); theoretical flaws (53.4%); parochial focus (39.7%); failure to link findings to the extant literature (34.4%); and failure to contribute to international literature (36.2%). Boote and Beile (2005) state the “mere disjointed summaries of a haphazard collection of literature”, as the major weakness in a literature review.

How to evaluate literature review?

Bootes and Beile (2005) have created a five-category rubric for evaluating a literature review. The categories are coverage or content, context, methodology, author, and relevance.

| Things to consider | | Yes | No |
|-----------------------|--|-----|----|
| Content | Is the article easy to understand? | | |
| | Does it use good arguments? | | |
| | Is evidence given for any claims made? | | |
| | Does the article make clear any limitations? (This is a good thing for an article to do.) | | |
| | Is the writing biased? | | |
| Context in discipline | Is this one of the key articles in the discipline? | | |
| | Does the writer agree with other writers? | | |
| | Does the writer disagree with other writers? | | |
| Methodology | Is the methodology appropriate for the study? | | |
| | Is enough information given for another researcher to replicate the study? | | |
| | Was the sample size adequate? | | |
| Author | Is this a reputable, academic author? | | |
| | Does the writer refer to other literature to support some of their claims? | | |
| Relevance | Is the research recent? | | |
| | Is the purpose of the research similar to your own? | | |
| | Was the study conducted under similar circumstances to your own subject? | | |
| | Can you draw on the research for your own work? | | |

Sample Paper

R. Dattakumar, R. Jagadeesh, (2003) "A review of literature on benchmarking",
 Benchmarking: An International Journal, Vol. 10 Issue: 3, pp.176-209,
<https://doi.org/10.1108/14635770310477744>
 References (382) Cited by (Crossref, 87) Cited by (Scopus, 108)

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About the author:

Dr. Jagadeesh is presently serving as Dean – Academics, and Professor in the area of Operations Management and Quantitative Techniques, at SDM Institute for Management Development, Mysore, India. He was a Visiting Professor at The Fox School of Business and Management at Temple University, Philadelphia, USA, from 2006 to 2012, where, he taught Operations Management.

He has authored four books and published more than 100 papers in reputed national and international journals and conferences and has guided Ph. D. candidates, under Visveswaraya Technological University, India, and Mysore University, India, and University of Azteca, Mexico. He has conducted numerous training programs for professionals and academicians in different organizations.

His qualifications include B.E. (Mysore University), M.E. (Madras University), Diploma in Production Management (Annamalai University), and Ph.D. (I I T, Bombay). He has certifications in Six Sigma Green Belt, PMP Preparation and CMM.

Dr. Jagadeesh has been honored by Rotary, and Lions Clubs, as well by several other professional organizations including Reliability Engineering Association, and research centers in colleges and universities.

His areas of interest include Logistics and Supply Chain Management, Quality Management, Data Analysis, and Quality in Education. Listed in Marquis Who's Who 2010 US Edition, Dr. Jagadeesh has over 30 years of experience in academics, teaching Engineering and Management subjects at graduate and post-graduate levels.

He is the founding Editor of SDM IMD Journal of Management and former Editor of i-managers' Journal on Management published by i-manager publications.

He is a reviewer and member of editorial board of several international journals and has co-authored four books. He has successfully conducted many training programs for personnel from corporate world, government and academia, on various topics.

He is a Life Member / Member of:

- (1). Institution of Engineers (India)
- (2). Indian Society of Technical Education
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- (4). Association of Indian Management Scholars, and
- (5). Indian Association for Productivity, Quality, and Reliability.

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