The Importance of Literature Review in Research: An overview and guidelines

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Abstract:

It is of a major importance for any researcher to demonstrate and critically analyse his/her understanding of the literature in the selected field of study. The present review article presents the meaning and types of literature review; process, importance and objectives. Literature review gains much importance within any piece of research as it reflects the researcher's knowledge and mastery of the topic being investigated and by combination, the establishment of the not yet explored, allowing the researcher to understand and explore the gaps in the literature by describing, comparing, correlating, and contrasting papers, books, reports and different types of materials. The aim of this paper is to provide a clear and concise structured overview on the major components and steps in writing a literature review.

Keywords: literature review; research study; research process.

1. Introduction

One of the primordial steps in undertaking a research study is to skim through the literature related to the field of investigation in order to get familiarised with the existing body of knowledge. Even if many researchers frequently assume that reviewing the literature is often time consuming, appalling and daunting it is worth pointing to the fact that it is actually much rewarding. The literature review is in fact a fundamental part of the research process and has significant effects on all of its succeeding parts. As it mainly shapes the overall view of the research study and helps in the establishment of both the theoretical framework of the study and the development of the research methodology. Yet, the process of writing the literature review requires some skills like: time management, organisation of materials, computer use, information handling, online searching and writing (Baker, 2000b, p. 223).

2. The Purpose of Literature Review

Researchers use literature reviews to get a large picture of a specific field of research of which they are interested in investigating. "All empirical studies—qualitative, quantitative, or mixed methods—must be connected to literature or concepts that support the need for the study, be related to the study's purpose statement, and situate the study in terms of previous work" (Rocco & Plakhotnik, 2009, p. 120). Rocco and Plakhotnik identified the four major aspects of the research process that are shaped by the literature review:

- Literature review helps in the generation of the main idea through the presentation of the primary information and data about the topic in order to get a general overview.
- Literature review contributes in the establishment of the conceptual framework through the definition of the core concepts of the topic as well as its multiple dimensions and complexity.
- Literature review helps in the development of a theoretical framework.

Rocco and Plakhtonik distinguish between the literature reviews, conceptual frameworks and theoretical frameworks; positing that: conceptual frameworks consist in the presentation of previous conceptual, theoretical and empirical work relative to the study topic. Theoretical framework is regarded as the presentation of a particular theory to be tested. it can differ according to whether it is a quantitative or a qualitative study (Denney & Tewksbury, 2013). In a qualitative research, the emphasis is on the research problem in a larger context; while in a quantitative study, the emphasis is on the theories, methods, variables and the synthesis and analysis of those variables in addition to the findings from previous research in testing the hypothesis or theory (Denney & Tewksbury, 2013).

- Literature review decides about the methodology to be used through the identification of the methodology choices used in the previous studies, looking at their strengths and limits.

3. Literature Review Definition

A literature review may be defined as a survey of the most pertinent literature related to a particular topic or discipline. (Hart, 1998, p. 13) argued that the literature review is the selection of available materials on the topic, containing information ideas, data and evidence reported from a specific perspective to reach some objectives or present some arguments on the essence of the topic and the way it may be explored, in addition to the effective evaluation of these materials par rapport to the targeted research.

In their research paper on *How to Write a Literature Review* (Denney & Tewksbury, 2013, p. 218) supported Hart's claim suggesting that: "a literature review is a comprehensive overview of prior research regarding a specific topic ... shows the reader what is known about a topic, and what is not known, thereby setting up the rationale or need for a new investigation".

While (Snyder, 2019, p. 333) summarised the definition of a literature review into the systematic process of collecting and synthetizing previous research, implying that; contrary to what is commonly known, a literature review is certainly not a mere collection of previous research. Rather, more a synthesis, that is the analysis and evaluation of the literature in addition to the explanation of what other researchers have already provided for a research field or problem.

According to the American Psychological Association (Meesala, 2014, p. 4) authors of a literature review examine a body of literature through the discernment of relations, contradictions, gaps and inconsistencies in the literature and by proposing the needed step or procedure that has to be taken to find solutions to the research problem.

(North Carolina State University Libraries, 2019) propose two axes to present a literature review:

- As part of a larger work (generally as the theoretical part of a dissertation, thesis, or research paper) or
- Stand-alone work such as a review article.

4. The Main Types of Reviews

(Webster & Watson, R.T, 2002) have put forward two types in relation to the maturity of the topic:

- **Mature topic:** where an accumulated compilation of a body of research already exists, still needs analysis and synthesis in which case researchers need to present a comprehensive literature review to later suggest a conceptual model that synthesises and develops existing research.
- **Emerging issue:** in this case, researchers may choose to tackle a relatively new or emerging issue that would take advantage from exposure to potential theoretical foundations. Thus, the review would necessarily be shorter and the researcher's contribution would emerge from the fresh theoretical bases proposed in expanding a conceptual model (xiv).

Grant and Booth (2009), on the other hand, proposed fourteen review types; this part presents a summary highlighting the main similarities and differences. The **overview, Literature review, State-of-the-art review** and **Umbrella review** all encompass a summary of the literature related to a topic and describe its characteristics. Yet with few differences, for instance; the **overview** type, in addition to the act of summarising the available literature, it may or may not be exhaustive. The **Literature review**, often used and regarded as a generic term, consists of published materials presenting investigation of recent or actual literature. It may cover a wide variety of subjects of various levels of completeness and thoroughness. It may encompass as well some previous research findings. While, the **State-of-the-art review** generally addresses more current matters opposed to other mixed retrospective and current approaches. It may provide new viewpoints on a specific issue or even indicate an area for further research. And the **Umbrella review** is precisely reviewing while gathering evidence from different sources or reviews putting them into a single accessible and useable document.

Likewise, the **Scoping review** often consists in preparatory evaluation of the potential size and scope regarding the available research literature. It mainly aims at identifying the nature and extent of research evidence, it often includes ongoing research.

Contrary to the aforementioned types, **Critical review** focuses on demonstrating that the writer has thoroughly explored literature and critically analysed it, it surpasses mere description to encompass analysis and conceptual innovation. Particularly results in hypothesis or research model. Also, the **Systematic search and review** type binds strengths of critical review and thorough search process together. Mainly addresses broad questions to engender "best evidence synthesis". Quite similarly, the **Systematic review** tends to systematically long for assessment and combination of research evidence, often complying with the guidelines on the review plan. The **Systematised review** seeks to encompass elements of the systematic review process but the only difference is that it is particularly conducted as postgraduate students' assignment.

Moreover, **Mapping review/Systematic map** and **Rapid review** fall into the same category as they both utilise systematic review methods; the **Mapping review** plans and categorises existing literature from which to extract and derive further reviews and/or primary research through the identification of gaps in research literature. Similarly, the rapid review considers the assessment of what is already known about a topic, through the use of systematic review methods to investigate and critically analyse existing research.

In the same regard, **Meta-analysis** is a technique that statistically fuses the results of quantitative studies in order to present a more precise effect of the findings unlike **Qualitative systematic review** or **Qualitative evidence synthesis** which includes or compares the different results and findings from qualitative studies. It aims at searching the common themes among qualitative studies.

Mixed studies review or **Mixed methods review** refers to any combination of methods where one significant element is a literature review (generally systematic). In a review context, it means the combination of multiple review approaches; for example, binding quantitative with qualitative research, or outcome with process research (Grant & Booth, 2009, p. 4).

4. Steps in Conducting a Literature Review

If the research problem has not been established yet, the researcher needs to review the literature in his/her field of interest and narrow it down gradually to a relatively more precise and specific topic so that the literature review becomes more focused on a research problem. Because, reviewing literature in a broad field without having a specific concept of what to investigate may be disadvantageous as it can control and restrict research as well as the methodology used, resulting, most frequently, in a bleak and uncreative research problem and methodology. Thus, it is primordial to start with a broad conceptualisation of a research problem before proceeding with the main literature review.

4.1. Choosing a review topic

Often, the most difficult part for students conducting research is the selection and choice of the topic. The reason why, at this stage, support is crucial in a way to guide students towards a topic where relevant literature can be easily accessed and where current empirical study has been undertaken (Timmins & McCabe, 2005, p. 2). Nonetheless, the difficulty often arises from the lack of knowledge in the topic; therefore Timmins & McCabe offered some clues to help in the selection of a topic:

First, researchers or students have to skim through a book and identify broad topics in the discipline that attracts their interest.

Second, the researcher has to read the chapters or parts related to the topic they have selected to gain familiarity with the vocabulary/keywords, primary investigations or previous research, and the main issues in the field.

Third, to have some discussions, especially with experts, or read exhaustively on the topic to help discern the specific area/s of interest, the researcher's knowledge about or mastery of the topic, and the ammount of the existing resources on the topic.

In this regard, teachers or experts in the field may help the researcher in the selection of the topic, but it is always preferable for researchers/students to choose topics that are tightly related to their favourite research field, their intellectual abilities and interests as well as their background knowledge and experiences. (Tent, 2008, p. 1) proposed three reasons why it is recommended for students to select topics of personal interest:

First, students will forcibly find themselves highly motivated to research their chosen topic, hence conducting their research with interest leads them to the completion of a quality dissertation.

Second, students must be already acquainted with the topic and are most likely to bring this knowledge to bear. Thus, this will definitely help them define the research area and formulate the research problem.

Third, students may feel that investigating an area related to their own experiences or personal interests can largely help them identify and easily access the needed data to collect.

However, the real difficulty faced by students may not only be deciding on a topic as much as it is about narrowing it down to a manageable size, the task which necessarily requires skill and guidance. Accordingly, when choosing a topic researchers need to avoid being overambitious, as the main research problem has to be manageable and researchable; hence, the researcher needs to take into account different variables that may have a direct impact on the research process, such as: the researcher's necessary skills and aptitudes, the accessibility to the

research tools and participants, the research time frame, the required resources and documents to obtain data from, the availability of professionals specialised in the field to guide and assist the researcher.

Tent (2008) summarised the process of choosing a topic and put it into a chart as:

Figure (1) : Steps in choosing a topic

| **Field** |
| Establish your field, and previous research work in it. |

| **Problem** |
| Identify a practical problem or a gap/deficiency in existing research. |

| **Proposed solution** |
| Define your proposed research and how it relates to the problem, gap or deficiency. |

| **Evaluation** |
| Consider and explain how your proposed research and its contribution to the field will be evaluated. |

Source : (Tent, 2008, p. 1)

4.2. Searching and selecting appropriate literature

After selecting the topic, comes the phase of identifying, in a structured way, the most appropriate and related information (Snyder, 2019, pp. 336-337) proposes prominent questions to ask in this phase, among which: What is the practical plan for selecting articles? How will the search process and selection be documented? Newell and Burnard (2006) argued that reviewers need to consider comprehensiveness and relevance, they also emphasised that the more specific the topic or research problem being investigated is, the more focused the results will be (Cronin, P, Ryan, F, & Coughlan, M, 2014).

It is always preferable to prioritise theoretical works, review articles and empirical research papers in the process of selecting the sources for the literature review. Even though it is possible to choose to deal with only one piece of research to start a literature review, yet, the display of various and conflicting theoretical arguments and findings along with the researcher's approach and perspective may strengthen the overall presentation of the literature review. At this point, the researcher must be selective and opt for works that have brought a more or less significant addition to the knowledge base in the selected field. The researcher needs, as well, to deeply scrutinise the selected works in order to eliminate any sources containing faulty methods or defective reasoning.

(Cronin, P, Ryan, F, & Coughlan, M, 2014) suggest that in the process of conducting a literature review research, the most important factor to consider as to whether include a publication or not, is to define the type of source. They have proposed four main types of source as portrayed in table 01. As they also highlight that while undertaking the literature review research, it is imperative to keep a record of the keywords and methods used in investigating the literature as these will have to be presented later when reporting how this research was conducted (Timmins & McCabe, 2005).

Table (1) : Defining the types of sources for a review

Source	Definitions
Primary source	Usually a report by the original researchers of a study
Secondary source	Description or summary by somebody other than the original researcher; such as a review article
Conceptual / theoretical	Papers concerned with description or analysis of theories or concepts associated with the topic
Anecdotal / opinion	Views or opinions about the subject that are not research, review or theoretical in nature

Source : (Cronin, P, Ryan, F, & Coughlan, M, 2014, p. 41)

It is usually preferable to use primary source which consist most frequently in papers published in reputable or indexed journals. As mostly, journals are considered as being more up-to-date than books or other sources of information (Cronin, P, Ryan, F, & Coughlan, M, 2014). Secondary sources are mainly descriptions and summaries of books or articles by someone other than the original researcher. Very similar to a literature review, secondary sources do certainly not present new information or knowledge. Considering secondary sources can be often regarded as a good step to start a literature review, though it is not advisable to rely exclusively on secondary sources (always consult the primary sources) to verify possible errors.

4.3. Analysis and synthesis of the literature

At this stage, the collected pieces of information are very much like the pieces in a jigsaw puzzle where they have to be put together in order to provide the overall picture or the whole state of knowledge. The researcher, now, is ready to analyse each piece, decomposing it and identifying the most relevant information in it, to later synthesise the collection through their fusion together and deriving the conclusion from the whole group.

Great attention must be paid, in this phase, as the literature review is certainly not just a summary of the selected sources. Rather, a good literature review must be organised according to each idea or variable discussed about the general topic or research problem. For example, a section of the literature review may state "Researcher A argues that X is true. Researcher B argues as well that X is true, however, highlights that the effects of X can be different from those proposed by Researcher A". it is obvious that, these statements deal with the variable X. both researchers A and B agree that X is true, though they disagree on its effects. Here, both standpoints are offered, agreement and disagreement, and the link between the two argument is the variable X.

Since a literature review in Not a summary of the collected sources, researchers may encounter difficulty in keeping their research organised. It is also difficult to organise information in such a manner to simplify the writing process. A common technique used by most researchers to help themselves in the organisation of their literature reviews, is the synthesis matrix. Which is form of a chart that presents and categorises the various arguments related to a specific problem. Actually, there exist multiple forms of matrices, in this part, two examples are chosen to be presented:

First, a chart, across the top line of which are the spaces to record sources and along the side of the chart are the spaces to note the main arguments on the specific topic; while examining the first source, the researcher works vertically within the column related to that source, recording the largest number possible about every significant point presented in the work. Then following a similar procedure for all following sources. Whenever relevant information relating to the already identified main points is found, it gets to be put in the appropriate row (Ingram, Hussey, Tigani, & Hemmelgarn, 2006).
Table 02 presents an example of the above explained type of matrix:

Table (2) : Synthesis matrix (Topic: Women in WWII)

	Source 01 Cornelsen	Source 02 Stewart
Argument A Alteration of women's roles because of WWII	- Women accredited the WASP program for opening new doors, challenging stereotypes, and proving that women were as capable as men (p. 113) - Women could compete with men as equals in the sky because of their exemplary performance (p. 116) - WASP created opportunities for	- WAAC (Women's Army Auxiliary Corp) was 1st chance for women to serve in army, given full army status in 1943 as WAC (p. 28) - Needs of the war were so great that women's traditional social roles were ignored (p. 30) - Military women paid well for the time period and given benefits if they became pregnant (p. 32)

	women that had never previously existed (p. 112) - Women's success at flying aircrafts "marked a pivotal step towards breaking the existing gender barrier" (p. 112)	-The1940's brought more opportunities to women than ever before (p. 26)
Argument B Opposition: WWII did NOT effect women		- Women put in untraditional roles during/because of the war, but back to previous subservient roles after the war (p. 35)

Source : adapted from (Huneycutt, 2006)

Another example of constructing a synthesis matrix is to choose six to twelve studies tightly related to the research problem. In the first column along the vertical axis of the table, write the name of the author and date of publication for each study (Sally, 2014). Then add columns to present the purpose or research questions, the method, characteristics of the sample, main findings of the study, the main similarities among findings from different scholars and the main differences among findings or new offered information through the findings of a particular scholar.

Table 03 portrays the last synthesis matrix example.

Table (3) : A synthesis matrix organised by the key studies

Author & date	Purpose	Method	Sample	Findings	Similarities	Uniqueness
Source 01						
Source 02						
Source 03						

Source : adapted from (Sally, 2014)**.**

4.4. Organising the review writing

The central objective of the literature review is to drive the reader towards the exact understanding for conducting such type of review. (Cronin, P, Ryan, F, & Coughlan, M, 2014) argue that the key to a good literature review consists in the ability of describing the findings in such a way that portrays the researcher's knowledge in a clear and consistent way.

Scholars from different academic disciplines have agreed upon the fact that the organisation and writing of the literature review can mainly be defined by some specific criteria; the criteria sample below is an adapted version from (Writing a Literature Review, 2021)

- **Introduction:** It should give a context for the research problem, presents the narrow claim at the end and puts forward the organisation of the research. It should be focused and well-developed.
- **Claim:** written at the end of the introduction stating the main claim and presenting a roadmap for the research.
- **Well-developed body:** in which all claims must be supported with reliable scholarly sources. These must be synthesised and the whole section should be from eight to ten full pages.
- **Effective conclusion:** it should empirically restate the researcher's position and present the implications of information and evidence gathered, instead of just summarising information.
- **Reference list:** a list of the cited sources, with a minimum of ten scholarly sources.

In addition to some general instructions:

- **Depth:** appropriate depth and development of topic; logical order of sources.
- **Voice:** consistent use of personal voice; not to rely heavily on others', but on multiple sources synthesised in each paragraph after the introduction.
- **Breadth:** good breadth of selected reliable sources but not many from the same author.
- **Use of sources:** effective introduction of sources along with meaningful comparisons and syntheses, not in form of report.
- **Evidence:** there must be an evaluation of the different research done in the field being investigated; assertions must be supported by evidence and the gathered evidence should be synthesised.

5. Conclusion

It is said that reviewing the literature as honouring the past to inform the present gives opportunity to affect the future. The present paper has provided a general overview as well as some guidelines to writing a literature review. It has presented the significance, types and the major components of a literature review.

Thus, as a conclusion, a good understanding of the multiple differences and similarities among scholars, while conducting a literature review, will certainly provide better guidance for the organisation, conceptualisation and the process of conducting research. Such understanding will surely add rigorousness and reliability to the research study.

References

Baker, M. J. (2000b). Writing a Literature Review. *The Marketing Review, 1*(2), 219-247.

Cronin, P, Ryan, F, & Coughlan, M. (2014). Undertaking a literature review: a step-by-step approach. In A. Ramdhani, M. Ramdhani, & A. S. Amin, *Writing a Literature Review Research Paper: a step-by-step approach* (Vol. 3, pp. 47-56). International Journal of Basic and Applied Science,.

Denney, A., & Tewksbury, R. (2013). How to Write a Literature Review. *Journal of Criminal, 24*(2), 218-234.

Grant, M., & Booth, A. (2009). A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal, 26*, 91-108.

Hart, C. (1998). *Doing a Literature Review: Releasing the Social Science Research Imagination.* London: Sage Publications.

Huneycutt, S. (2006). Sample matrix. *NC State University Writing and Speaking Tutorial Service Tutors*.

Ingram, L., Hussey, J., Tigani, M., & Hemmelgarn, M. (2006). Writing A Literature Review and Using a Synthesis Matrix. *NC State University Writing and Speaking Tutorial Service Tutors*.

Meesala, A. (2014). *Literature Review in Business Research, chapter in Management research in India published by Management Teachers' Consortium (MTC)*. Retrieved from https://www.researchgate.net/publication/267626948_Literature_Review_in_Business_ Research

North Carolina State University Libraries (Director). (2019). *Literature Reviews: An Overview for Graduate Students, video 9:38 minutes. https://www.lib.ncsu.edu/tutorials/litreview/* [Motion Picture].

Rocco, T. S., & Plakhotnik, M. S. (2009). Literature Reviews, Conceptual Frameworks, and Theoretical Frameworks: Terms, Functions, and Distinctions. *Human Resource Development Review, 8*(1), 120-130.

Sally. (2014). A Synthesis Matrix as a Tool for Analyzing and Synthesizing Prior Research. In A. Ramdhani, A. Ramdhani, & A. Amin, *Writing a Literature Review Research Paper: A step-by-step approach* (Vol. 3, pp. 47-56). International Journal of Basic and Applied Science,.

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research, 104*, 333-339.

Tent, J. (2008). *Writing your dissertation: a guide.* Australia: Macquarie.

Timmins , F., & McCabe, C. (2005). How to conduct an effective literature search. *Nursing Standar, 20*(11), 41-47.

Webster, J., & Watson, R.T. (2002). Analyzing the Past to Prepare for the Future: Writing Literature Review. *MIS Quarterly, 26*(2), 13-23.

Writing a Literature Review. (2021, 11 18). Retrieved from depts.washington.edu: http://depts.washington.edu/psywc/handouts/pdf/litrev.pdf