

5. An Overview Of Systematic Literature Review In The Field Of Research Work

Rakesh Manna

Research Scholar, Department of Education,
University of Kalyani, West Bengal, India -741235.

Dr. Jayanta Mete

Professor, Department of Education, University of Kalyani,
Kalyani, Nadia, West Bengal, India -741235.

Introduction:

Review of related Literature is a very important part in design of a research work. A review of the literature and related research report's is a most important component in designing a research project. The review should describe, summarize, evaluate and clarify this literature. A literature review is a survey of scholarly sources that provides an overview of a particular topic. It generally follows a discussion of the paper's thesis statement or the study's goals or purpose. Best (2003) stated that "Man builds upon the accumulated and recorded knowledge of the past and a familiarity with the literature. Any problem area helps the students to discover what is already known, what others have attempted to find out, what methods of action have been promising and what problems remain to be unsolved". It should give a theoretical basis for the research and help us determine the nature of our own research. Select a limited number of works that are central to our area rather than trying to collect a large number of works that are not as closely connected to our topic area.

'Review of related studies' works as a main guide for the entire research process. Any scientific investigation starts with a review of the literature. It is an essential part of the research process which allows a researcher to acquire current knowledge in a scientific way in the field of research work. The knowledge of the related study helps the researcher carry out the research work smoothly,

systematically and concisely. It helps a researcher avoid keep away from any duplication of work done earlier. A careful review always focuses at interpreting previous studies and indicating their usefulness for the study to be undertaken.

The review of literature is a written summary of articles, books, and other documents that describes the past and current state of knowledge about a topic. It involves the systematic identification, location, and analysis of documents containing information related to the research problem.

The review of the literature in educational research provides one with means of getting to the frontier in a particular field of knowledge. According to Miller (1965) research worker must be aware of what is known with some degree of certainty, what is accepted as truth by some but not by others, and must have some linking of the nature of unexplored areas where additional research should be conducted. (Chandra, 2014)

Once the researcher identifies a topic that can have an should be studied; the search can begin for related literature on the topic. It provides a framework for establishing the importance of the study as well as a benchmark for comparing the results with other findings. Quantitative research, for example, includes a substantial amount of literature at the beginning of a study to provide direction for the research questions or hypotheses. Not only these, it is useful in other section of a research study.

A literature review goes beyond the search for information and includes the information and articulation of relationships between the literature and our field of research. While the form of the literature review may vary with different types of studies, the basic purposes remain constant:

- Provide a context for the research.

- Justify the research.
- Ensure the research hasn't been before.
- Shown where the research fits into the existing body of knowledge.
- Enable the researcher to learn from previous theory on the subject.
- Illustrate how the subject has been studied previously.
- Highlight flaws in previous research.
- Outline gaps in previous research.

What is Literature Review?

A Literature Review is a systematic and comprehensive analysis of books, scholarly articles and other sources relevant to a specific topic providing a base of knowledge on a topic. Literature reviews are designed to identify and critique the existing literature on a topic to justify your research by exposing gaps in current research.

This investigation should provide a description, summary, and critical evaluation of works related to the research problem and should also add to the overall knowledge of the topic as well as demonstrating how your research will fit within a larger field of study.

A literature review should offer critical analysis of the current research on a topic and that analysis should direct your research objective. This should not be confused with a book review or an annotated bibliography both research tools but very different in purpose and scope. A Literature Review can be a standalone element or part of a larger end product, know your assignment. Key to a good Literature Review is to document your process.

A literature review is a survey of scholarly sources that provides an overview of a particular topic. It generally follows a discussion of the paper's thesis statement or the study's goals or purpose.

Definitions of Review of Related Literature:

- According to Creswell, “A literature review is a written summary of journal, articles, books and other documents that describes the past and current state of information on the topic of research study.”
- According to Cooper (1988), “....a literature review uses as its database reports of primary or original scholarship, and does not report new primary scholarship itself. The primary reports used in the literature may be verbal, but in the vast majority of cases reports are written documents.”
- According to Bruce (1994), “The review of relevant literature is nearly always a standard chapter of a thesis or dissertation. The review forms an important chapter in a thesis where its purpose is to provide the background to and justification for the research undertaken.”
- According to Lichtman (2006) “A literature review is an accounting of what is out there on a particular topic It represents a synthesis and critical assessment related to a particular topic.”

Importance Of The Review Of The Related Literature:

The literature review is important because;

- It describes how the proposed research is related to prior research in statistics.
- It shows the originality and relevance of your research problem specifically, your research is different from other statisticians.
- It justifies our proposed methodology.
- It demonstrates our preparedness to complete the research.

According To Goll The Literature Review Is Important Because:

- Seeking new lines of enquiry.
- Avoiding fruitless approaches.

- Delimiting the research.
- Gaining methodological inside.
- Identifying recommendation for further research.

Many researchers struggle when it comes to writing literature review for their research paper. A literature review is a comprehensive overview of all the knowledge available on a specific topic till date. When you decide on a research topic, usually the first step you take in the direction of conducting research is learn more about the previous research published on the topic, and this eventually translates into literature review when you write your research paper. Literature review is one of the pillars on which your research idea stands since it provides context, relevance, and background to the research problem you are exploring.

The Purpose Of A Literature Review Is To:

- Provide foundation of knowledge on topic
- Identify areas of prior scholarship to prevent duplication and give credit to other researchers
- Identify inconsistencies: gaps in research, conflicts in previous studies, open questions left from another research
- Identify need for additional research (justifying your research)
- Identify the relationship of works in context of its contribution to the topic and to other works.
- Place your own research within the context of existing literature making a case for why further study is needed.

Types Of Literature Review:

Literature reviews can be categorized as Experimental literature review and Theoretical literature review. Experimental literature review basically refers to

surveying all the information available on a particular topic and critically analyzing the gaps that need to be worked upon. In this sense, it essentially forms the first experiment of any research project. The more extensive the review, the more precise and systematic the research project will be. Therefore, it is one of the most critical parts of one's research work. On the other hand Theoretical literature review essentially involves two steps: First, Surveying and critically reading the existing literature: this step is commonly referred to as experimental literature review; and Second, Summarizing and actually penning down the gist of your review in an organized manner: this is known as theoretical review.

It is important to think of knowledge in a given field as consisting of three layers.

1. There are the primary studies that researchers conduct and publish.
2. The reviews of those studies that summarize and offer new interpretations built from and often extending beyond the original studies.
3. There are the perceptions, conclusions, opinions, and interpretations that are shared informally that become part of the lore of the field.

In composing a literature review, it is important to note that it is often this third layer of knowledge that is cited as "true" even though it often has only a loose relationship to the primary studies and secondary literature reviews. Given this, while literature reviews are designed to provide an overview and synthesis of pertinent sources you have explored, there are several approaches to how they can be done, depending upon the type of analysis underpinning the study.

Various types and definition of literature reviews are listed below:

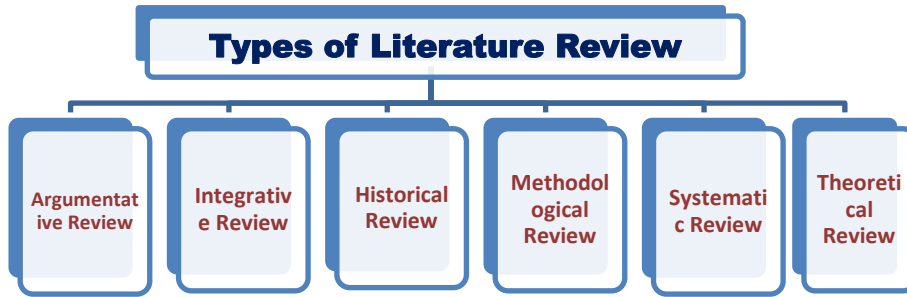


Fig.: 1 -Types of Literature Review

Argumentative Review: Argumentative Review is a review, this form examines literature selectively in order to support or refute an argument, deeply imbedded assumption, or philosophical problem already established in the literature. The purpose is to develop a body of literature that establishes a contrarian viewpoint. Given the value-laden nature of some social science research [e.g., educational reform; immigration control], argumentative approaches to analyzing the literature can be a legitimate and important form of discourse. However, note that they can also introduce problems of bias when they are used to make summary claims of the sort found in systematic reviews.

Integrative Review: Integrative Review is another type of review, Considered a form of research that reviews, critiques, and synthesizes representative literature on a topic in an integrated way such that new frameworks and perspectives on the topic are generated. The body of literature includes all studies that address related or identical hypotheses. A well-done integrative review meets the same standards as primary research in regard to clarity, rigor, and replication.

Historical Review: Historical review is a review; few things rest in isolation from historical precedent. Historical reviews are focused on examining research throughout a period of time; often starting with the first time an issue, concept, theory, phenomena emerged in the literature, then tracing its evolution within the scholarship of a discipline. The purpose is to place research in a historical context

to show familiarity with state-of-the-art developments and to identify the likely directions for future research.

Methodological Review: Methodological Review is a review does not always focus on ‘what’ someone said (content), but ‘how’ they said it (method of analysis). This approach provides a framework of understanding at different levels (i.e. those of theory, substantive fields, research approaches, and data collection and analysis techniques), enables researchers to draw on a wide variety of knowledge ranging from the conceptual level to practical documents for use in fieldwork in the areas of ontological and epistemological consideration, quantitative and qualitative integration, sampling, interviewing, data collection and data analysis, and helps highlight many ethical issues which we should be aware of and consider as we go through our study.

Systematic Review: Systematic Review is a review, this form consists of an overview of existing evidence pertinent to a clearly formulated research question, which uses pre-specified and standardized methods to identify and critically appraise relevant research, and to collect, report, and analyze data from the studies that are included in the review.

Theoretical Review: In Theoretical Review, the purpose of this form is to concretely examine the corpus of theory that has accumulated in regard to an issue, concept, theory, phenomena. The theoretical literature review help establish what theories already exist, the relationships between them, to what degree the existing theories have been investigated, and to develop new hypotheses to be tested. Often this form is used to help establish a lack of appropriate theories or reveal that current theories are inadequate for explaining new or emerging research problems. The unit of analysis can focus on a theoretical concept or a whole theory or framework.

Three Essential Categories of literature review are found. Those are follows-

1. **Simple:** A simple literature review is a brief overview of the topic not necessarily purely academic in scope and often uses popular sources (although popular sources are noted so their weight and value can be judged), this review is often just the start of the research process.
2. **Applied:** Used mostly in business, government and other professional environments applied literature reviews are more fact finding exercises. Used to look at marketability and profitability they look at change and value objectivity and accuracy in similar projects and programs.
3. **Academic:** Whether stand alone or part of a paper, study, or project the Academic Literature Review requires accuracy, quality resources, objectivity thoroughness and quality analysis but unlike the other two styles the Academic Review requires a depth the others do not. Academic sources not popular should be used and a summary and synthesis of sources usually within a conceptual framework.

Elements Of Literature Review:

There are many different ways to organize the references in a literature review, but most reviews contain certain basic elements. These are follows:

Objective of the literature review: Clearly describe the purpose of the paper and state your objectives in completing the literature review.

Overview of the subject, issue or theory under consideration: Give an overview of your research topic and what prompted it.

Categorization of sources: Grouping your research either historic, chronologically or thematically.

Organization of Subtopics: Subtopics should be grouped and presented in a logical order starting with the most prominent or significant and moving to the least significant.

Discussion: Provide analysis of both the uniqueness of each source and its similarities with other sources.

Conclusion: Summary of your analysis and evaluation of the reviewed works and how it is related to its parent discipline, scientific endeavor or profession.

Main features of Elements in a Literature Review:

- Locate major formative works in the field
- Ascertain key researchers working on this topic
- Find main ideas conclusions and theories Establish Similarities & differences
- Notice main methodologies and Research techniques
- Identify gaps in existing research
- Show relationships between previous studies / theories
- Provide context for your own research
- Explore existing information in the fields of research

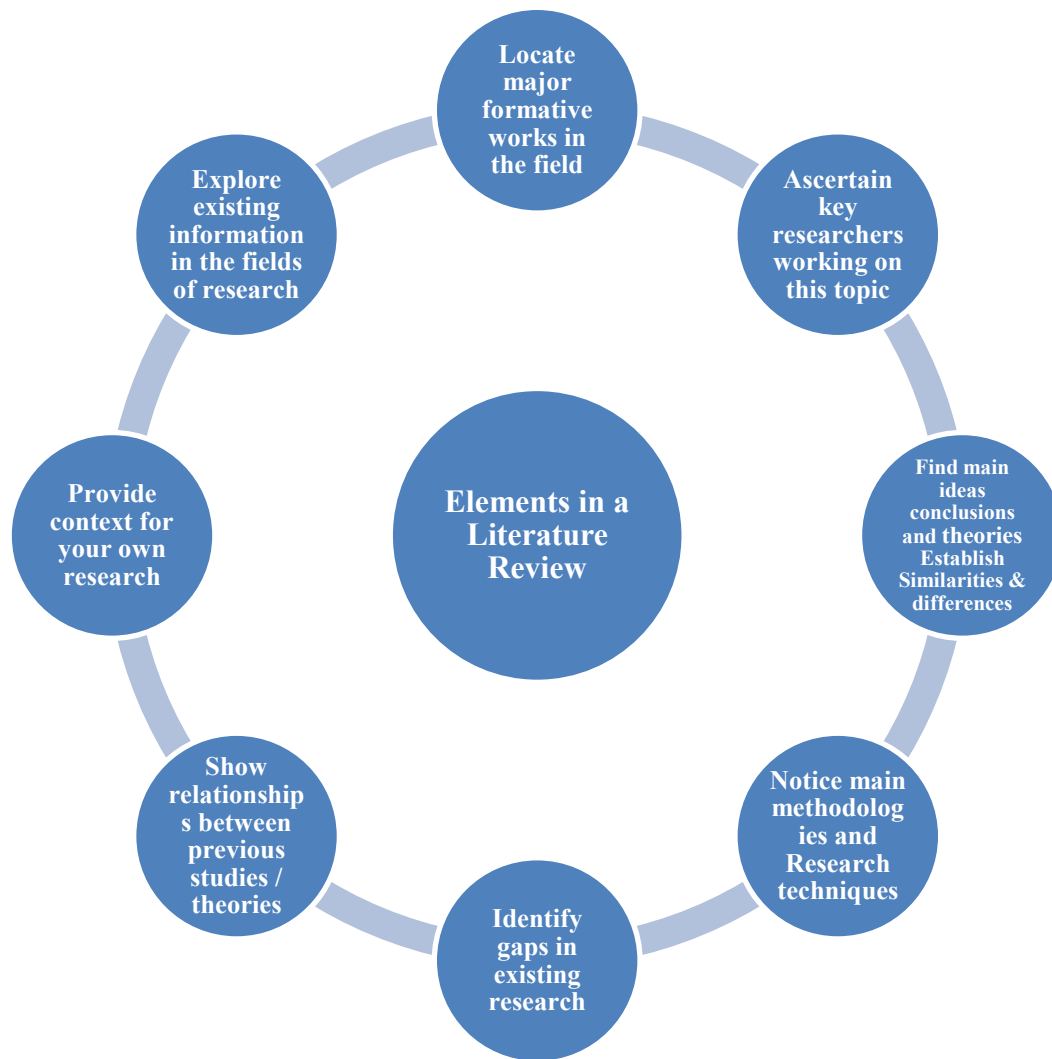


Fig:2- Elements of Literature Review

Systematic Review Seeks To:

- Identify all relevant published and unpublished evidence
- Assess critically the quality of each study/ literature
- Synthesizes the findings/ conclusion from each study/ literature in an unbiased way
- Interpret the findings/ conclusion
- Present a balanced and impartial summary of the findings/ conclusion (with due consideration of any flaws in the evidence.)

Systematic Review And Literature Review:

It is common to confuse systematic and literature reviews as both are used to provide a summary of the existent literature or research on a specific topic. Even with this common ground, both types vary significantly. Please review the following chart (and its corresponding poster linked below) for the detailed explanation of each as well as the differences between each type of review.

	Systematic Review	Literature Review
Definition	High-level overview of primary research on a focused question that identifies, selects, synthesizes, and appraises all high quality research evidence relevant to that question.	Qualitatively summarizes evidence on a topic using informal or subjective methods to collect and interpret studies.
Goals	Answer a focused clinical question Eliminate bias	Provide summary or overview of topic
Question	Clearly defined and answerable clinical question Recommend using PICO as a guide	Can be a general topic or a specific question
Components	Pre-specified eligibility criteria Systematic search strategy Assessment of the validity of findings Interpretation and presentation of results Reference list	Introduction Methods Discussion Conclusion Reference list
Number of Authors	Three or More	One or more
Timeline	Months to years Average eighteen months	Weeks to Months
Requirements	Thorough knowledge of the topic Perform searches of all relevant databases Statistical analysis resources (for meta-analysis)	Understanding of topic Perform searches of one or more database
Value	Connects practicing clinicians to high quality evidence Supports evidence-based practice	Provides summary of literature on a topic

Fig- 3: Systematic Review And Literature Review

Sources of Research Literature:

The review of literature is a written summary of articles, books, and other documents that describes the past and current state of knowledge about a topic.

The review of literature involves the systematic identification, location, and analysis of documents containing information related to the research problem.

- Theses,
- Journals
- Books
- Magazines,
- Seminar Papers,
- Handbooks
- Government documents
- Encyclopedias
- Dictionaries and Glossaries of Terms
- Indexed Publications
- Electronic Sources
- Abstracts,
- Different/ various authors
- Occasional papers,
- Various types of report, etc.

Review Helps You To:

- Review helps to define and limit your study area to form a research question.
- Review helps to increase your knowledge of the subject area and methodology.
- Review helps to give background, context and perspective to your work and thesis.
- Review helps to avoid reinventing the wheel (saves time, avoids the mistakes of others).
- Review helps to evaluate possible research methods.

- Review helps to build on existing knowledge, to suggest further research.
- Review helps to identify people working in your field.

It Shows The Reader That You Can:

- Organize information and relate it to the research question.
- Compare and contrast authors' views noting areas of disagreement.
- Criticize aspects of methodology.
- Identify: seminal and exemplary work; gaps and areas of controversy.
- Synthesize results into a summary of what is and is not known and you can,
- Formulate question that needs further research.

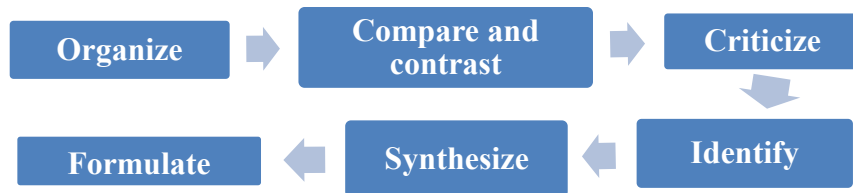


Fig. 4: Flow Chart

Preparing A Literature Review Thus Involves:

- Searching for reliable, accurate and up-to-date material on the topic or subject
- Reading and summarizing the key points from this literature
- Synthesizing these key ideas, theories and concepts into a summary of what is known
- Discussing and evaluating these ideas, theories and concepts
- Identifying particular areas of debate or controversy
- Preparing the ground for the application of these ideas to new research

Steps Of Literature Review: The process of writing a literature review is not necessarily a linear process. It also reminds to continually keep track of the

research by citing sources and creating a bibliography. Basically, there are four steps of literature review. These are-

1. **Topic** - Decide on a research topic or question. The formulation of a thesis will help get the process started. This may have to be revisited as work on research.
 - Know what the review is for; each assignment will offer the purpose for the review. For example, is it for “background”, or a “pro and con discussion”, "integration", “summarizing”, etc.
 - Create a “search plan”, decide where will search for information, what type of information as will need.
2. **Research** - Perform Searches; choose sources and collect information to use in paper. Make sure cite the sources used.
3. **Think** - Analyze information in a systematic manner and begin the literature review (e.g., summarize, synthesize, etc.). Make sure cite the sources used.
4. **Complete** - Write the paper, proof & revise and create the finished bibliography.

Literature Reviews For Dissertation / Research Article:

Every research report/ thesis/research article begins with an introduction to the topic of research. This forms the literature review for the article. The main purpose of the review is to introduce the readers to the need for conducting the said research. A literature review should begin with a thorough literature search using the main keywords in relevant online databases such as Google Scholar, PubMed, etc. Once all the relevant literature has been gathered, it should be organized as follows:

1. Background literature about the broad research topic to introduce the readers to the field of study.

2. Recent progress on the study topic which can be organized thematically or chronologically. Ideally, separate themes should be discussed in a chronological manner to describe how research in the field has evolved over time and to highlight the progress in the field.
3. The review should include a comparison and contrast of different studies. Discussing the controversial aspects helps to identify the main gaps that need to be worked upon. This is essential for defining the problem statement of the study and highlighting the significance of the research under question.
4. Once a problem statement has been defined, the strengths and pitfalls of other studies that have tackled the problem statement should be discussed. This is important for outlining the need and novelty of the research.

A literature review should not be a mere recounting of all the available information. It should be a critical and analytical summary of the selected literature that guides the readers through the central theme of the research.

Stand-Alone Literature Reviews:

Literature reviews can also be written as stand-alone articles. These are not different from the literature review sections described above; however, they are not followed by experimental data.

They basically fall into 2 broad categories: narrative reviews and systematic reviews.

1. Narrative Reviews: These are theoretical discussions of relevant information on a particular topic and its critical analysis. These are mostly qualitative in nature similar to the review sections of larger articles.

Narrative Reviews Are Usually Organized As Follows:

Introduction that establishes the context of the field of research and the topic of the review

Body is normally used for describing the different themes under the main topic by dividing them into different subheadings. This section compares and contrasts published studies and identify gaps that have not been addressed or have been unsuccessfully addressed.

Conclusions This section differs slightly between reviews which are part of research articles and narrative reviews. The section describes the main conclusions from analysis of all the current studies and puts forth further avenues for research. This section requires critical interpretation by the author such that the review adds value to existing literature. It should bring out ideas/hypotheses that can explain any discrepancies and provide solutions to existing problems.



Fig. 5: Flow Chart.

2. Systematic Reviews:

On the other hand, systematic reviews follow a well-planned methodology to qualitatively or quantitatively analyze a defined number of studies. They usually focus on a single question and have clear study objectives that are worked upon in a systematic manner. These studies are based on a well-defined strategy unlike narrative reviews. Systematic reviews and narrative reviews are organized slightly differently. The details are described below:

Introduction: Systematic reviews begin with specific research questions that are defined in terms of the samples and research outcomes to be studied.

Methods (only for systematic reviews): These studies have a comprehensive methodology that starts by narrowing down the literature for the review. Usually, specific inclusion/exclusion criteria are set based on the research questions and databases are searched based on these criteria. Once the sample studies have been shortlisted, they are analyzed in detail.

Results: The results section for these studies involves comprehensive data analysis to determine the significance of the study outcomes. Systematic reviews can be accompanied with Meta-analysis which involves statistical analysis of the included studies to increase the power of the results.

Discussion: This section usually interprets the study data based on their weighted significance and the power of the results. The study therefore provides strengthened results that are validated by the scientific rigor of the analytical method.

Before starting to write a review, it is important to determine what kind of review you want to write and follow the appropriate style and guidelines. An effective literature review is important for the complete life cycle of a research from defining the right research goals to correctly interpreting and presenting the research results.



Fig. 6: Flow Chart

References:

1. Aggarwal, J.C (2007): 'Essentials of Educational Psychology', Vikas Publishing House Pvt. Ltd., New Delhi, 2007.
2. Best, W. J. and Kahn, J. V.: Research in Education, New Delhi: Prentice Hall, 2003.
3. Best, W John, Kahn, James V (2011), Research in Education, New Delhi: PHI Learning Private Limited
4. Booth, A., Papaioannou, D., & Sutton, A. (2012). Systematic approaches to a successful literature review.
5. C. R. Kothari, Research Methodology: Methods and Techniques, New Delhi: New Age International, 2004.
6. Chandra, R. (2014). Influence of Socio-Economic Status And Intelligence on Academic Achievement of Secondary School Students of Lucknow City. thesis, Integral University, Lucknow.
7. Fink, A. (2010). Conducting research literature reviews: From the Internet to paper
8. Galvin, J. (2006). Writing literature reviews: A guide for students of the social and behavioral sciences
9. Garret, H E (2007), Statistics in Psychology of Education, New Delhi: Paragon International Publishers
10. J. W. Creswell, Educational Research: Planning conducting and evaluating quantitative and qualitative research, Upper Saddle River: Pearson, 2008.
11. Kennedy, Mary M. "Defining a Literature." Educational Researcher 36 (April 2007): 139-147.
12. Key, K.L., Rich, C., DeCristofaro, C., Collins, S. (2010). Use of Propofol and emergence agitation in children: A literature review. AANA Journal, 78(6).
13. Khandpekar, Neeta M. (2017). Book Review - Qualitative Research for Social Sciences, Journal of Indian Research. 5(3), 112-114.

- 14.Koul, Lokesh (2006), Methodology of Educational Research, New Delhi: Vikas Publishing House
- 15.Literature Review: Literature Review, Learning to Write a Systematic Review of Literature, https://uscupstate.libguides.com/Literature_Review
- 16.Ledesma, M. C., & Calderón, D. (2015). Critical race theory in education: A review of past literature and a look to the future. *Qualitative Inquiry*, 21(3), 206-222.
- 17.Lichtman, M. (2014), *Qualitative Research for Social Sciences*, Sage, USA, pp.418
- 18.M. Derntl, "Basics of research paper writing and publishing", *Int. J. Tech. Enhanced Learning*, vol. 6, no. 2, pp. 105-123, 2014.
- 19.Machi, L. A., & McEvoy, B. T. (2012). *The literature review: Six steps to success*
- 20.Mohan, Radha (2011), *Research Methods in Education*, Hyderabad: Neelkamal Publications Pvt Ltd

Webliography:

1. www.wikipedia.org
2. www.shodhganga.inflibnet.ac.in
3. www.ncw.nic.in
4. www.en.wikipedia.org
5. www.slideshare.net
6. www.academicjournals.org/articles
7. http://www.education.nic.in/ssa/ssa_1.asp
8. <https://guides.library.ucsc.edu/write-a-literature-review>
9. https://uscupstate.libguides.com/Literature_Review
10. <https://research.library.gsu.edu/c.php?g=115595&p=754162>