




Mastering the Art of Literature Review in Research


Presented at Thomas Adewumi University (Online)

By
Dr. Taiwo Kolajo
Federal University Lokoja
Friday, 4th April 2025





Outline

- Introduction
 - Importance of Literature Review
 - Types of Literature Review
 - Steps in Conducting Literature Review
 - Synthesizing and Writing the Review
 - Challenges in Literature Review
 - Best Practices for an Effective Literature Review
 - Practical Section
 - Conclusion
- 



Introduction

This presentation will guide you through the essential steps of conducting a literature review, providing practical insights and tips.



Maintaining Objectivity

To maintain objectivity, approach your review with an open mind. Consider all perspectives, and avoid bias towards studies or theories that align with personal beliefs.



Definition of Literature Review

A literature review (LR) is a comprehensive survey of existing research on a specific topic, summarizing and synthesizing available knowledge to provide a foundation for a new study (Carrera-Rivera et al., 2022).



Importance of Literature Review in Research





- Provides context and background for research
- Identifies gaps in current knowledge
- Helps refine research questions and objectives
- Avoids duplication of efforts
- Establishes theoretical and conceptual frameworks
(Chigbu et al., 2023; Snyder, 2019)





Types of Literature Reviews

- **Narrative Review:** Summarizes and synthesizes available literature without following a strict methodology.
 - **Systematic Review:** Uses a structured approach to identify, evaluate, and synthesize research evidence.
 - **Meta-Analysis:** Statistically analyzes combined data from multiple studies.
 - **Scoping Review:** Explores the breadth of research on a topic without focusing on quality assessment.
- 
- 

Steps in Conducting LR

- **Step 1: Define the Research Problem**
 - **Clarify the Research Topic**
 - **Formulate a Research Question.**
 - **Use Research Frameworks to Structure the Question**
 - **PICO (Population, Intervention, Comparison, Outcome).** Used in evidence-based research fields like healthcare
 - **SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research type).** More suitable for qualitative research
 - **CLIP (Client group, Location of provided service, Improvement/Information/Innovation, Professionals).**
 - **Other frameworks are PEO** (used for qualitative research question), **ECLIPSE** (similar to CLIP)
 - **Establish Research Objectives**
 - **Ensure Feasibility and Scope**
 - **Align with Theoretical Frameworks**

Steps in Conducting LR

- **Step 2: Search for Relevant Literature**

- Identify appropriate databases such as Google Scholar, PubMed, IEEE Xplore, Scopus, and Web of Science.
- Develop a search strategy using keywords, Boolean operators (AND, OR, NOT), and truncation symbols to refine search results.
 - **Using Keywords Effectively**
 - **Boolean Operators: AND, OR, NOT**
 - **Truncation and Wildcards**
- Use reference lists of selected articles to discover additional relevant studies.
- Keep a record of search queries and results for reproducibility.

Steps in Conducting LR

- **Step 3: Evaluate and Select Sources**
 - Assess the credibility of sources by considering factors like peer review status, author expertise, and journal impact factor.
 - Use inclusion and exclusion criteria to filter relevant studies (e.g., publication year, language, study design).
 - Critically analyze each source to determine its contribution to the research topic.
 - Be aware of potential biases and conflicts of interest in published works.



Steps in Conducting LR

- **Step 4: Organize and Analyze Literature**
- Utilize reference management tools like **EndNote, Mendeley, or Zotero** to organize citations and notes efficiently.
- **Advantages**
 - Efficiently manages your references
 - Keeps all your thought together
 - Cites seamlessly

Steps in Conducting LR

- **Step 5: Synthesize and Write the Review**

- Integrate findings from multiple sources to provide a coherent narrative rather than simply summarizing individual studies.
- Highlight agreements, contradictions, and gaps in the literature to justify the need for further research.



Maintain a logical structure, organizing the review by themes, chronology, or methodological approaches.

- Ensure proper citation formatting and adherence to academic writing standards to avoid plagiarism.





Challenges in LR

- Managing information overload and selecting the most relevant studies.
 - Identifying and mitigating biases in the selection and interpretation of literature.
 - Keeping up with the constantly evolving body of research.
 - Ensuring a balanced and objective synthesis of existing studies.
- 
- 

Best Practices

- Start early and systematically plan each stage of the review.
- Use multiple databases and diverse search strategies to ensure comprehensive coverage.
- Critically evaluate sources to maintain a high standard of quality.
- Regularly update the review to incorporate recent advancements.
- Maintain meticulous records of sources and citations to ensure reproducibility

Practical Section

1. Download and Install Mendeley Reference Manager

✓ Step 1: Download Mendeley

- Go to the official Mendeley website:
<https://www.mendeley.com/reference-management/reference-manager>

✓ Step 2: Install the Application

- Open the downloaded file and follow the installation instructions.
- Once installed, launch Mendeley Reference Manager.

✓ Step 3: Create or Log in to Your Mendeley Account

- If you don't have an account, sign up for free on [Mendeley](#).
- If you already have an account, log in to sync your references across devices.

Practical Section

2. How to Use Mendeley Reference Manager



Adding References



Option 1: Manual Entry

- Click "Add new" → "Add entry manually"
- Fill in details (Title, Author, Year, Journal, etc.).



Option 2: Import from PDF

- Drag and drop a **PDF file** into Mendeley, and it will extract metadata.



Option 3: Import from Academic Databases

- Use **Google Scholar**, **PubMed**, or **ScienceDirect** and download citation files (.RIS, .BibTeX, .EndNote).
- Click "Add new" → "Import library" and upload the file.







Option 4: Using the Mendeley Web Importer

- Install **Mendeley Web Importer** from [here](#).
- Click the **Mendeley icon** in your browser to save articles directly.

Practical Section

2. How to Use Mendeley Reference Manager

Citing References in Microsoft Word

-  Install **Mendeley Cite** from Microsoft AppSource.
-  Open **Microsoft Word** → Go to **References** → Click **Mendeley Cite**.
-  While writing, click "**Insert citation**" and search for references.
-  Click "**Insert Bibliography**" to generate a reference list automatically.

Practical Section

2. How to Use Mendeley Reference Manager

Organizing References

- ✓ Create **Collections (Folders)** to categorize references.
- ✓ Use **tags and notes** to add additional information.
- ✓ Search for specific references using the **search bar**.

Syncing & Accessing References Anywhere

- ✓ Click "**Sync**" to save references to the cloud
- ✓ Access your references on **any device** (Desktop, Web, Mobile) .

Practical Section

Exporting References from **Google Scholar** to **Mendeley**



Option 1: Export Individual References

- **Go to Google Scholar** (<https://scholar.google.com>).
- **Find a reference** you want to save.
- Click on the **quote (")** icon below the reference.
- Click **"BibTeX"** (or "EndNote" if you prefer).
- A new tab will open with the BibTeX code. Copy and save the text as a .bib file.
- Open **Mendeley**, go to **File > Import > BibTeX**, and select your file.



Option 2: Enable Direct Export to Mendeley

- **Go to Google Scholar settings** (Click the three horizontal lines at the top left, then "Settings").
- Scroll to **"Bibliography manager"**.
- Choose **"Show links to import citations into"** → **"EndNote"** (Mendeley can import EndNote files).
- Click **"Save"**.
- Now, when you search for references, you'll see **"Import into EndNote"** below each entry.
- Click it, download the .enw file, and then open it in **Mendeley** (or drag and drop it into your library).



Option 3: Use Mendeley Web Importer

- **Install the Mendeley Web Importer** extension in Chrome or Firefox.
- While on **Google Scholar**, click the Mendeley extension.
- Select the references you want and save them directly to your Mendeley library.

Conclusion

- Conducting a literature review is an essential step in research that requires careful planning, critical evaluation, and systematic organization.
- A well-conducted literature review strengthens research by providing a robust foundation and identifying future research directions.
- By following a structured approach, researchers can ensure their review is thorough, insightful, and valuable to the academic community



References

Carrera-Rivera, A., Larrinaga, F., & Lasa, G. (2022). Context-awareness for the design of Smart-product service systems: Literature review. *Computers in Industry*, 142(103730). <https://doi.org/10.1016/j.compind.2022.103730>

Chigbu, U. E., Atiku, S. O., & Du Plessis, C. C. (2023). The Science of Literature Reviews: Searching, Identifying, Selecting, and Synthesising. *Publications*, 11(1). <https://doi.org/10.3390/publications11010002>

Luft, J. A., Jeong, S., Idsardi, R., & Gardner, G. (2022). Literature Reviews, Theoretical Frameworks, and Conceptual Frameworks: An Introduction for New Biology Education Researchers. *CBE Life Sciences Education*, 21(3), rm33. <https://doi.org/10.1187/cbe.21-05-0134>

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>



Thank you!

Question Time!

