



Building Effective Literature Reviews for Signature Work

February 2026
DKU Library



Parts of a Research Paper

- Abstract
- Introduction
- Literature Review
- Methodology
- Findings/Results
- Discussion
- Conclusion



Samples of literature review:

- <https://www-proquest-com.proxy.lib.duke.edu/central/docview/3201549304/fulltextPDF/F29A65297C324BC2PQ/8?accountid=10598&sourcetype=Scholarly%20Journals>
- <https://www-proquest-com.proxy.lib.duke.edu/central/docview/3254509554/fulltextPDF/F29A65297C324BC2PQ/13?accountid=10598&sourcetype=Scholarly%20Journals>



What is a literature review?

- **Definition:** a systematic examination and synthesis of the existing literature on a specific topic.
- **Purpose:** providing a comprehensive overview of the existing literature within a particular field.
- **Analysis:** critically evaluating and summarizing key findings, methodologies, and debates found in literature.
- **Identifying Gaps:** under-researched areas; unresolved problems; contradictory findings; and questions for further investigation.
- **Contextualization:** Enables researchers to understand how their work fits into the broader academic conversation and contributes to the existing body of knowledge.



What is NOT a literature review?

- An annotated bibliography
- An original research
- An essay
- A list of summarized sources
- A chronological compilation of studies
- A collection of all sources you have read



Purpose of a literature review

- Demonstrate your understanding/expertise of your chosen topic
- Demonstrate your ability to do research
- Provide your readers with the most prevalent theories and studies on your topic
- Provide evaluations and comparisons of these studies, and gaps in the existing literature



Define your research topic

Define topic:

- Do a preliminary search on your topic
- Narrow down a topic from a broad topic
- Broaden your topic from a narrow topic
- May use AI tools to help you select a topic you want to explore

Brainstorming

- Start from a broad research interest
- Narrow down your scope: specific areas
- Identify key themes and/or theories
- Draft a manageable research question

Limit scope

- geographic area
- time period
- discipline/field of study
- population
- language
- age group, etc.

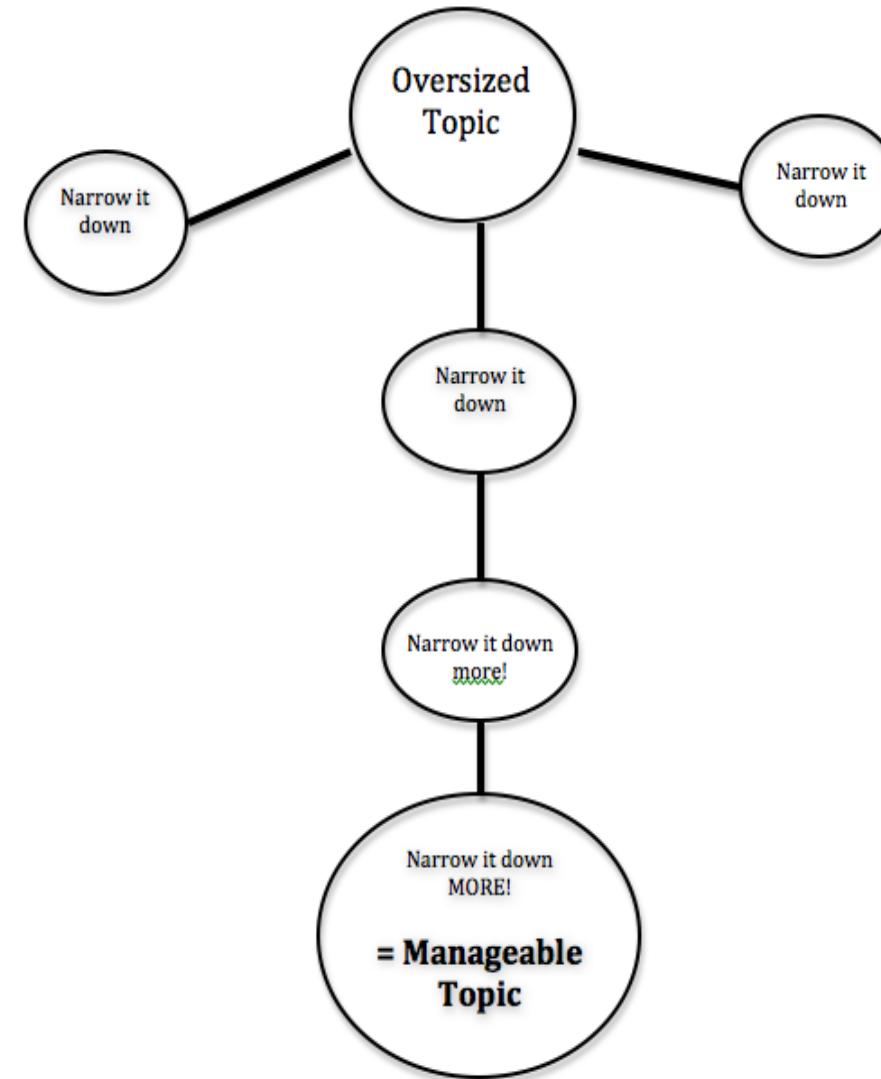
Assistance from AI

- Generate more relevant research questions
- Provide suggestions of narrowing down your focus
- The key to use AI is to use **good prompts**

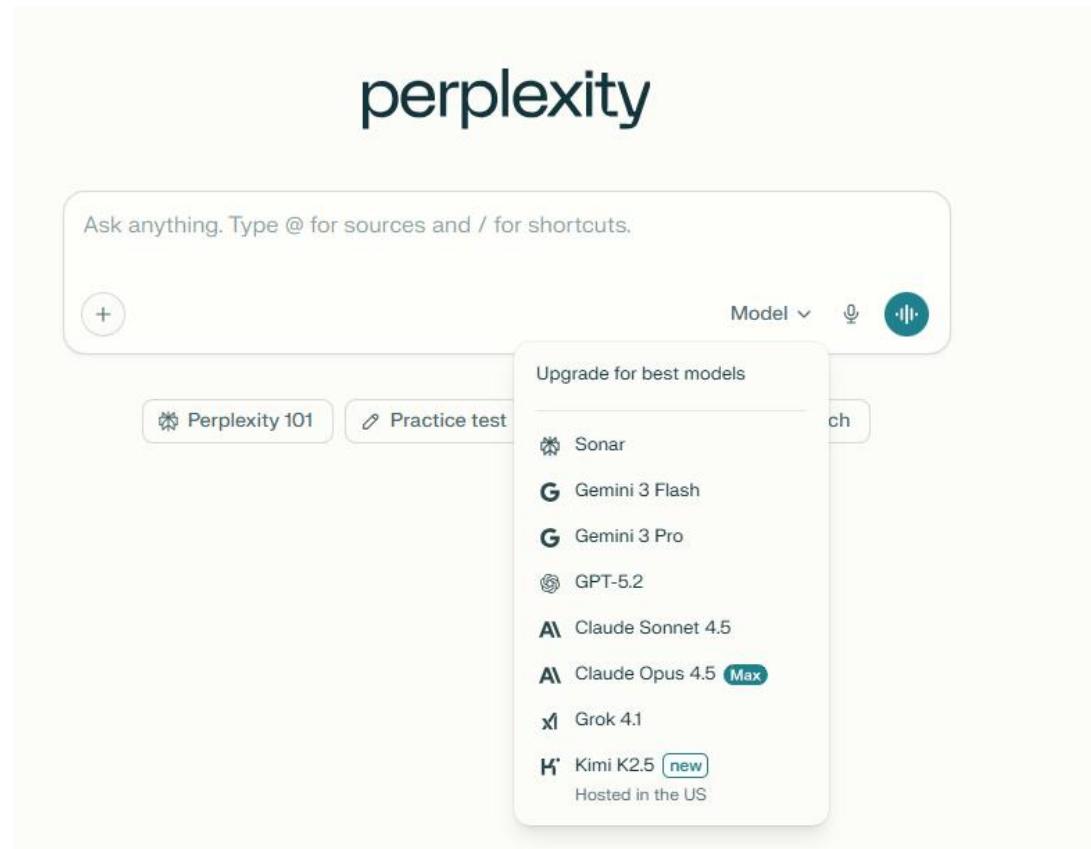


Narrowing Your Topic

- Broad topic:
Pollution
- Narrowed topic:
Air pollution
- Further narrowed topic: ***Air pollution in Los Angeles***
- Further narrowed topic: ***Transportation and air pollution in Los Angeles***



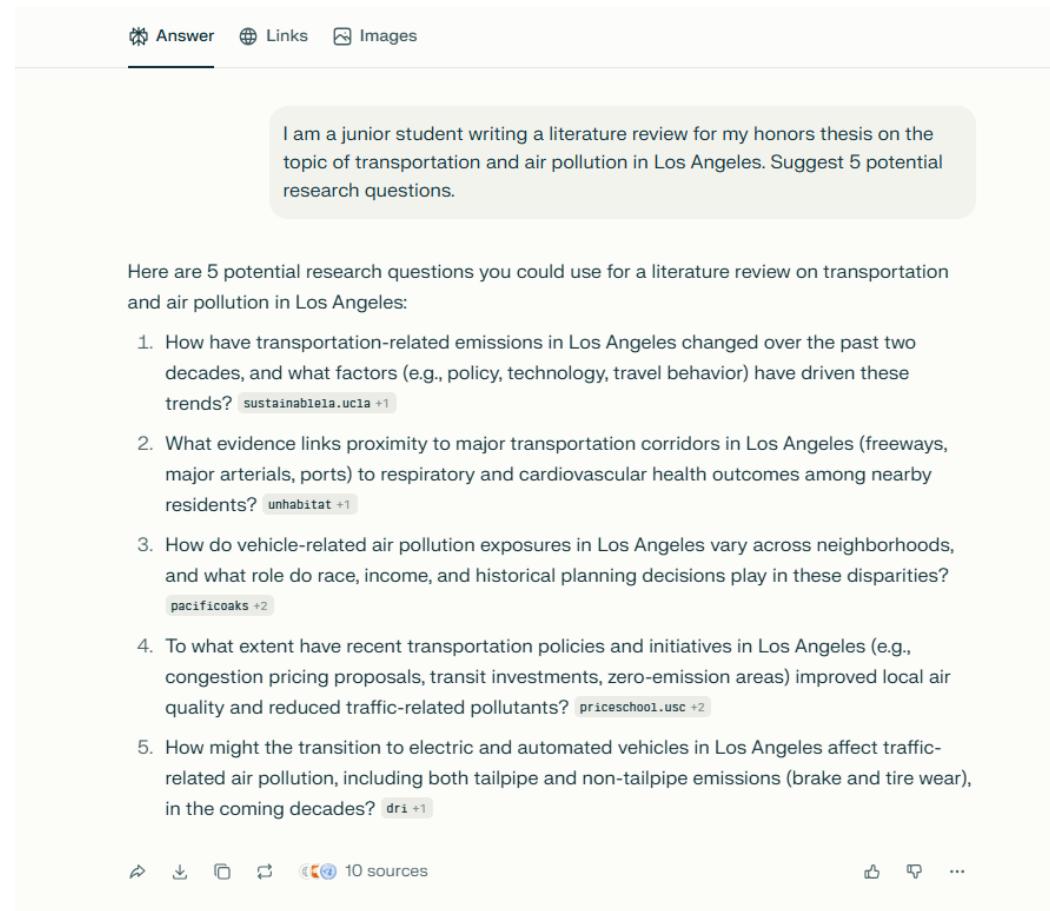
Perplexity



- Free, and affordable pro trial for students
 - Multiple language models to choose from with pro plan
- Sources include not only academic journals, but also grey literature
 - Government reports
 - International organization data
 - Policy documents
 - Mass media publications
- Conversational summary of cited answers to research question

Use AI in this case

- [X] Give me a research question about pollution. – *too vague without any contexts or constraints.*
- [V] I am a junior student writing a literature review for my honors thesis on the topic of transportation and air pollution in Los Angeles. Suggest 5 potential research questions. – *clear command but insufficient context.*



The image shows a screenshot of a AI interface. At the top, there are three buttons: 'Answer', 'Links', and 'Images'. Below this, a user input box contains the text: 'I am a junior student writing a literature review for my honors thesis on the topic of transportation and air pollution in Los Angeles. Suggest 5 potential research questions.' A response box below it says: 'Here are 5 potential research questions you could use for a literature review on transportation and air pollution in Los Angeles:' followed by a numbered list of 5 questions. Each question includes a small link to a source. At the bottom of the interface are standard sharing and social media buttons.

I am a junior student writing a literature review for my honors thesis on the topic of transportation and air pollution in Los Angeles. Suggest 5 potential research questions.

Here are 5 potential research questions you could use for a literature review on transportation and air pollution in Los Angeles:

1. How have transportation-related emissions in Los Angeles changed over the past two decades, and what factors (e.g., policy, technology, travel behavior) have driven these trends? [sustainablela.ucla +1](#)
2. What evidence links proximity to major transportation corridors in Los Angeles (freeways, major arterials, ports) to respiratory and cardiovascular health outcomes among nearby residents? [unhabitat +1](#)
3. How do vehicle-related air pollution exposures in Los Angeles vary across neighborhoods, and what role do race, income, and historical planning decisions play in these disparities? [pacificoaks +2](#)
4. To what extent have recent transportation policies and initiatives in Los Angeles (e.g., congestion pricing proposals, transit investments, zero-emission areas) improved local air quality and reduced traffic-related pollutants? [priceschool.usc +2](#)
5. How might the transition to electric and automated vehicles in Los Angeles affect traffic-related air pollution, including both tailpipe and non-tailpipe emissions (brake and tire wear), in the coming decades? [dri +1](#)

Use AI in this case

- [V V] I am a junior student writing a literature review for my honors thesis on the topic of transportation and air pollution in Los Angeles. Suggest 10 potential research questions that are specific and reasonable. Group them by different angles and explain why each one could be useful for a good literature review supported by real and valid evidence. *– clear command and context with flexibility for suggestions*

The screenshot shows a AI-generated literature review. At the top, there are three buttons: 'Answer', 'Links', and 'Images'. The main text area contains the following prompt: 'I am a junior student writing a literature review for my honors thesis on the topic of transportation and air pollution in Los Angeles. Suggest 10 potential research questions that are specific and reasonable. Group them by different angles and explain why each one could be useful for a good literature review supported by real and valid evidence.' Below this, a link 'Reviewed 10 sources >' is shown. The text then continues: 'Here are 10 specific, reasonable research questions on transportation and air pollution in Los Angeles, grouped by angle, each framed so a literature review can be supported by real and valid evidence.' A section titled 'Angle 1: Emissions, exposure, and spatial patterns' is shown, with the following question: 'How do concentrations of traffic-related pollutants (e.g., NO₂, NO_x, PM_{2.5}) vary with distance from major roadways and freeways in Los Angeles, and what methods have been used to measure this spatial pattern?' An answer follows: 'This is well supported by work using land-use regression and combined mobile/fixed-site monitoring in Los Angeles, which document strong gradients near major roads and describe specific measurement techniques you can compare.' A second question in the same section is: 'What is the relative contribution of exhaust versus non-exhaust traffic emissions (brake and tire wear) to particulate pollution in the Los Angeles region?' An answer follows: 'Recent studies identify substantial contributions from non-tailpipe sources and quantify their share of PM_{2.5} and related toxicity, giving you concrete data to synthesize and critique.' At the bottom of the AI-generated text, there is a note: 'Your answer was upgraded to Pro Search' and 'Pro Subscribers get access to more advanced search and research.' There are also 'Skip' and 'Upgrade' buttons. A final question is: 'What is the association between residential proximity to major traffic corridors in Los Angeles and health outcomes?'.



Steps in the literature search

- Generating Keywords/Subject Terms
- Selecting Databases and Other Resources
- Performing the Search
- Downloading / Recording Results



Plan your search

Questions to ask before you start searching:

- What types of sources should be evaluated?
- How many databases or other resources do you want to use?
- How in-depth should you evaluate and explore your sources?

What types of resources you will search and use?

- Books (use with caution)
- Journal and newspaper articles
- Media items
- Grey literature
- Images
- Social media: TikTok, Rednote, Facebook, Instagram, etc.

Select key databases to search:

- Web of Science, Proquest, PubMed, JSTOR, etc.



Find Research Databases

Subjects ▼ Types ▼ Search

1206 Databases

[All](#) [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) <#>

A

[A&AePortal](#)

Alternate Name(s): A&A ePortal, Art and Architecture Portal, Art & Architecture Portal

The A&AePortal is an authoritative eBook resource that features important works of scholarship in the history of art, architecture, decorative arts, photography, and design.

[AATA Online](#)

Search for articles related to conservation and heritage management

[ABI/INFORM Collection](#)

Search for journal articles, trade journals and market research reports with business and economic information

[Academic OneFile](#)

Search for journal articles and news coverage for many subjects

Quick Links

Not sure where to start? Try these:

- [Academic Search Complete](#)
Search for journal articles, books, reports and conference proceedings for many subjects
- [JSTOR](#)
Search a collection of important scholarly journals representing a range of disciplines
- [Nexis Uni](#)
Search for news, business, legal, medical, and congressional information (formerly named **Lexis Nexis Academic**)
- [Proquest](#)
Search for articles from thousands of scholarly journals
- [PubMed](#)
Search for journal articles in biomedicine
- [Scopus](#)
Search peer-reviewed literature, including scientific journals, books and conference proceedings
- [Web of Science](#)
Search for articles from scholarly journals in all areas of research



Search the literature

Search strategies

- Search using keywords, subject terms, Boolean operators, truncations, etc.
- Use AI tools such as chatbots to brainstorm related terms

Document your search

- Keep track of what you've done so that you don't repeat unproductive searches
- Reuse successful search strategies for future papers
- Help you describe your search process for manuscripts
- Justify your search process

Literature Search is a repeated and trial-and-error process

- Alternative or more specific terms
- Boolean (OR, AND, NOT), truncations, quotations, etc.
- Filters (dates, language, document types, etc.)

Use AI in this case

- For the research question [X]:
- 1. identify the main concepts in this question and list 10–15 possible keywords and synonyms for each concept
- 2. suggest 8-10 relevant sources including library databases, authoritative government sites and mass media
- 3. for each source, suggest 3-5 search strategies using the keywords listed in step 1.

Answer Links Images

For the research question "What is the association between residential proximity to major freeways in Los Angeles and respiratory diseases in Los Angeles":

1. identify the main concepts in this question and list 10–15 possible keywords and synonyms for each concept

Show more ▾

Reviewed 10 sources >

Here's a structured answer you can use directly for your assignment.

1. Main concepts and keywords/synonyms

Research question:
"What is the association between residential proximity to major freeways in Los Angeles and respiratory diseases in Los Angeles?"

I'd break this into three main concepts:

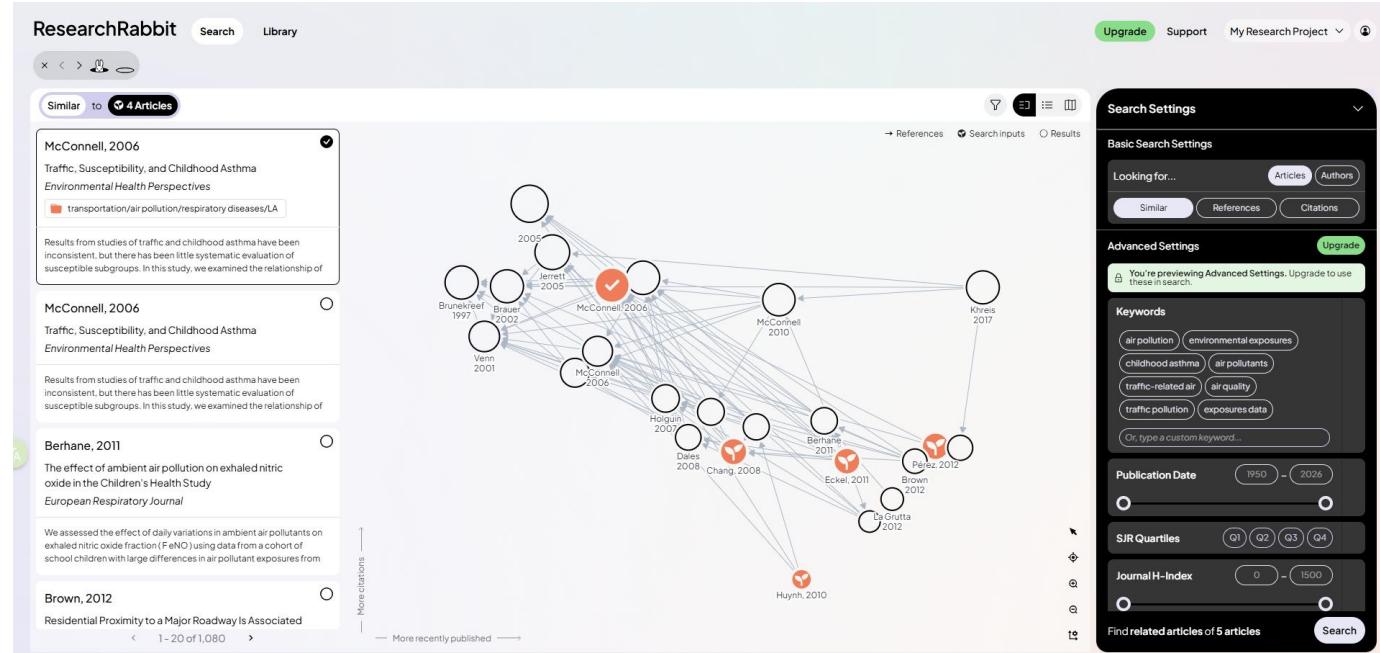
1. Residential proximity to major freeways
 - residential proximity
 - near-roadway
 - near-road

Use AI in this case

Why not directly ask AI to generate a literature review?

- Ensure academic integrity
- Examine the credibility, bias, and currency of sources
- Avoid severe AI hallucination
- Maintain a transparent and reproducible search process
- Train your critical thinking and synthesis skills

ResearchRabbit



- Free basic plan that utilizes citation analysis powered by artificial intelligence
 - Unlimited searches across 280+ million articles
- Supports connection with Zotero folders for finding relevant citations for a great volume of references
- Track and visualize relevant literature and scholars
- Only citation and abstract provided
- Useful when stuck in a preliminary search that retrieves few results



Organize the sources into a review

- Chronological
- Trend
- Thematic
- Theoretical
- Publication types
- Methodological
- Current Situation
- Historical lessons
- Etc.



Use Citation Management Tools to Organize your results

- **Zotero**
- **Mendeley**
- **EndNote**
- **RefWorks**



Synthesize your findings

Duke Library: <https://guides.library.duke.edu/litreviews/synthesize>

How to synthesize

In the synthesis step of a literature review, researchers analyze and integrate information from selected sources to identify patterns and themes. This involves critically evaluating findings, recognizing commonalities, and constructing a cohesive narrative that contributes to the understanding of the research topic.

Synthesis	Not synthesis
✓ Analyzing and integrating information	✗ Simply summarizing individual studies or articles
✓ Identifying patterns and themes	✗ Listing facts without interpretation
✓ Critically evaluating findings	✗ Copy-pasting content from sources
✓ Constructing a cohesive narrative	✗ Providing personal opinions
✓ Recognizing commonalities	✗ Focusing only on isolated details
✓ Generating new perspectives	✗ Repeating information verbatim



Recommended Guides of Literature Reviews

- **Duke University Library**

<https://guides.library.duke.edu/litreviews/gettingstarted>

- **University of North Carolina at Chapel Hill Writing Center**

<https://writingcenter.unc.edu/tips-and-tools/literature-reviews/>

- **Purdue University – Purdue OWL**

https://owl.purdue.edu/owl/research_and_citation/conducting_research/writing_a_literature_review.html

- **San José State University Writing Center**

<https://www.sjsu.edu/writingcenter/docs/handouts/Literature%20Reviews.pdf>



We'd like to hear your feedback

