

# Writing Good Proposal Using AI

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# **Caveat Emptor!**

I advocate for creative, critical, and ethical uses of technology

# Today's Agenda

**Activity 1: Title**

**Activity 2: Research Question**

**Activity 3: Abstract**

**Activity 4: Literature Review**

**Activity 5: Methodology**

- **Before we begin**
- This guide can help you write any academic text, such as: -
- Your Master or PhD thesis
- - A research proposal
- - A journal or conference paper
- It's especially useful for those working in interdisciplinary research approaches and across methodologies

# Before you begin

- These are the basic ingredients that you will need here:
  - 1) A research question (or a few candidates)
  - 2) Skills in one (or more) research methodologies
  - 3) A familiarity with the literature in your area
  - 4) An understanding of research ethics

- **Setting up**
- First of, go to <https://chat.openai.com/>
- and create an account.
- Or you can use <https://bard.google.com/>
- Or
- <https://texta.ai/>
- It should be the same for the purpose of this exercise. It's better if you first play around with these trying out different prompts

# Activity 1: Title

Let's start with the title of your thesis/proposal/paper. Don't worry, it's often a working title until the very last minute.

- 1. Write down the title of your research
- 2. Write a short paragraph describing what your study is about. You can use dictation tech to write this or just write it quickly using everyday words as you would tell someone at a bar or in an elevator
- 3. Ask ChatGPT: "Give me a list of ten possible titles for a thesis that presents a study of \_\_\_\_\_"
- 4. Compare the results with your original title. Anything useful or interesting?

## **Activity 1: Title Prompt:**

- List ten possible titles for a thesis
- Eg Effect of cognitive restructuring on adolescents' anxiety



- **Activity 2: Research Question**
- 1. Write down your research question
- Not a yes/no question
- Not many questions in one
- A question that seeks to understand
- May require an answer or lead to new questions
- 2. Ask ChatGPT: “Give me ten variants of this research question: \_\_\_\_\_”
- 3. Compare the results with your original title. Anything useful or interesting?

- **Activity 3: Abstract**

- To write your abstract, answer these questions in one sentence each:

- 1. What is your study about?

- 2. Why is this a worthwhile topic/area for research?

- 3. Who (else) needs to know about this topic?

- 4. How will you study this topic?

- 5. Results: How will your study contribute to the field of study?

## Activity 4: Literature Review

- What a literature review is:
  - An overview of research on a given topic and answers to related research questions
  - Features of such an overview:
    - Organizes literature
    - Evaluates literature (<= higher-order critical thinking)
    - Identifies patterns and trends in literature
    - Synthesizes literature (<= higher-order critical thinking)

# What a Literature Review is and is Not

- What a literature review is:
  - An overview of what we know and of what we do not know about a given topic
  - Not necessarily exhaustive, but up-to-date and includes all major work on the topic
  - Intellectual context for your original research
  - Motivation for your original research
    - Structure of review guided by your objectives
    - Continually refers back to your thesis or research questions

# What a Literature Review is and is Not

- What a literature review is not:
  - A “laundry list” of everything written on a topic, where each source gets its summary paragraph
    - Lacks organization guided by thesis or research questions
    - Lacks synthesis of literature
    - Lacks critical evaluation of literature
  - An annotated bibliography
  - A literary or book review

# Purposes of a Literature Review

- Learning about research on a given topic and answers to related research questions (<= read broadly)
- Learning about how a body of research evolved
- Displaying your understanding of research on a given topic
  - Identification of important works
  - Points of agreement, consensus
  - Points of disagreement, controversy
  - Identification of areas for further research
- Providing readers with the intellectual context and some motivation for your original research (<= narrow focus)

# Types of Literature Reviews in the Social Sciences

- “Literature”: Typically primary sources, scholarly works
- Chapter in a thesis or dissertation
- Explicit section in a grant or research proposal
- Explicit section in a research report
- Full-length, stand-alone review article

# Starting a Literature Review

- The necessary first step:
  - Select a topic and formulate a few well-defined research questions
  - Examples:
    - Reason learning (far too broad)
    - Research on factors influencing learning (still a bit broad)
    - Empirical research on factors influencing learning among adolescents (manageable)



# Starting a Literature Review

- Early back-and-forth:
  - Select a topic and formulate a few well-defined research questions
  - Brainstorm a list of search terms related to your topic and then search for sources
    - Keyword searches
    - Text/bibliographic databases
    - Reviewing reference sections
  - Briefly review sources and use what you learn to refine your topic and research questions

# Starting a Literature Review

- Working backwards:
  - Begin with a collection of recent research on a given topic
  - What authors or papers appear in the texts' introductions, literature reviews, or references sections?
- Identifying core literature, the “classics”:
  - What authors or papers do researchers keep citing?
  - What works do researchers identify as “classic,” “landmark,” “pioneering,” or “path-breaking?”
- Search out this preceding literature

# Organizing Before Writing a Literature Review

- Getting a sense of the big picture:
  - What are the trends and themes in the literature? What are the points of consensus? What are the points of controversy? Which debates are on-going? Where does my research weigh in?
  - Where are the areas on which there is ample research? What are the areas that need further research?
  - Which studies offer support for my thesis? Which studies contradict my thesis?
  - Where does my research fit into the larger literature on the topic?

# Organizing Before Writing a Literature Review

- Checklist for notes on each source:
  - Full citation information
  - What is the author's discipline and credentials?
  - What is the topic? What are the research questions?
  - What is the methodology employed? Theoretical framework? Empirical framework?
  - What are the study's main results? What are the answers to the research questions?
  - What are the strengths and limitations of the study?
  - How is the study related to other research on the same topic?

# Writing a Literature Review

- Potential organizing principles:
  - Methodology: Theoretical perspective, empirical framework
  - Studies that agree with one another
  - Studies that disagree with one another
  - Extent of support for your thesis
  - Regional focus
  - Data range, sample
  - Chronological
- Tip: Organize studies according to “common denominators”

# Writing a Literature Review

- Musts for your writing:
  - Linkage I: Continually link your discussion of the literature back to your thesis and research questions
  - Linkage II: Link studies to one another; stress relatedness of research on your topic
  - Prioritize/Classics: Identify “classic” studies and discuss them accordingly (i.e., with more detail, and with an eye for their influence)

# Writing a Literature Review

- Musts for your writing:
  - Evaluate/Gaps: Identify shortcomings of particular studies and/or the body of research as a whole; be critical!
  - Frontier: Identify areas for further research; where can research on your topic go from here?

# Writing a Literature Review

- Mechanics of writing:
  - Audience:
    - Scholarly, but avoid jargon
    - Wants to know about literature
    - Wants to know what you have to say about the literature
    - Wants to know where your research fits
  - Short paragraphs can help to keep writing crisp
  - Subheadings can help to clarify structure of review (for full-length literature reviews)



# Writing a Literature Review

- Mechanics of writing:
  - Use direct quotations sparingly; paraphrase studies
  - Prioritize studies in the literature:
    - Signal importance by discussing relatively more important studies with more detail
    - Signal importance by noting influence on subsequent studies

# Writing a Literature Review

- Rhetorical moves:
- Similarity: also, again, in addition to, additionally, similar to, similarly, alike, like, agree, agrees with
- Disagreement: contradicts, counter, opposite, differs, debate, at odds, on the other hand, disagree, disagrees with
- Evaluation: classic, pioneering, important, influential, lacks, fails to consider, ignores, overlooks, limited by/to, confined to, restricts attention to

# Writing a Literature Review

- Writing checklist:
  - Did I include a clear statement of my topic's importance, the research questions I am seeking to answer, and my thesis?
  - Did I include a clear statement of the scope of my literature review and what criteria I used for including studies in it?
  - Did I identify the "classic" works on my topic and give them priority in my discussion of the literature?
  - Did I summarize the studies and link them to one another as well as back to my thesis and research questions?
  - Did I critically evaluate the literature, identifying its limitations and areas where further research is needed?

- **Methodology**

- Write down in one or two sentences how you applied (or plan to) the methodology to address your research question? How do these align?
- What other methods have been used to study this topic or question?
- How do those studies inform your work? Or how (will) do your work inform those types of studies?
- Why are you not selecting another methodology?
- Set a 1hr later to complete the following template

# Activity 5: Methodology

My methodology for this study is \_\_\_\_\_ which consists of \_\_\_\_\_ . This methodology has been used for \_\_\_\_\_ by these people in these studies \_\_\_\_\_ , resulting in \_\_\_\_\_ outcomes/findings/contributions. This topic has also been studied using other methodologies: \_\_\_\_\_ by \_\_\_\_\_ and \_\_\_\_\_ by \_\_\_\_\_. The limitations of those methodologies for the study of this particular topic are: \_\_\_\_\_ and \_\_\_\_\_. The main limitations of the methodology I chose here are \_\_\_\_\_ and \_\_\_\_\_ as explained by \_\_\_\_\_. The main reason why this methodology that I chose suits this topic is \_\_\_\_\_ (“big picture” philosophical justification)

- **Methodology**
- Respond to these prompts:
  - This is how I plan to apply my method(s):
  - People involved (participants, stakeholders, collaborators...): \_\_\_\_\_
- Step by step process: \_\_\_\_\_
- Place(s), tools, materials: \_\_\_\_\_
- Pilots, prototypes: \_\_\_\_\_
- Ethical concerns or issues: \_\_\_\_\_
- Because... (craft a strong argument for each item “... because...”)

# **Best 8 AI-powered apps for literature review**

- A [literature review](#) is a critical analysis and summary of existing research and literature on a specific topic.
- It involves identifying, evaluating, and synthesizing relevant literature and research studies to provide an overview of the present state of knowledge on the topic.
- The purpose of a [literature review](#) is to identify the gaps in the current knowledge and to provide a context for the research question or hypothesis being investigated.
- A [literature review](#) provides a comprehensive overview of the existing knowledge on a topic and serves as a foundation for new research studies.
- Literature survey is a crucial step in any research work, but it can also be a daunting and time-consuming task.



- You have to find, read, and evaluate hundreds or thousands of research papers, synthesize the existing knowledge, and identify the gaps and opportunities for your research.
- Fortunately, there are some AI-powered apps that can help you with literature survey and make it easier and faster. In order to automate the tasks such as searching for articles, identifying relevant papers, and summarizing papers the apps use the artificial intelligence.
- Besides, this saves you a significant amount of time and effort. It lets you focus on the more creative and strategic aspects of your research work.
- Here are some of the best 8 AI-powered apps for [literature review](#) that you should try:

- **Research Rabbit**
- **Research Rabbit is an AI-powered app that helps researchers find, organize, and analyze research papers.**
- **It is a free tool that can be used by anyone, regardless of their research experience.**
- Research Rabbit uses AI to scan the web for relevant scholarly articles. In addition to that the AI-based tool allows you to save and organize articles in your own personal library.
- To use Research Rabbit, you first need to create an account. Once you have created an account, you can start searching for research papers. You can search by keyword, topic, or author.
- Once you have found the papers you are interested in, you can add them to your collections. Collections are a way to organize your research papers. You can create as many collections as you need.
- Research Rabbit- [Link](#)

- **Scholarcy**
- **Scholarcy is an AI-powered app that can help you with your academic reading. It can automatically summarize articles, create flashcards, and generate bibliographies.**
- Scholarcy can also help you find related research and identify key information in articles.
- In order to use Scholarcy, you first need to create an account. Once you have created an account, you can start adding articles to your library.
- Additionally, you can add academic papers from a variety of sources like Google Scholar, PubMed, and your personal library.
- Once you have added scholarly articles to your library, you can start using Scholarcy's features. To summarize an article, simply click on the "**Summarize**" button.
- Scholarcy will then generate a summary of the article in a few seconds.
- Overall, Scholarcy is a valuable tool that can help you with your academic reading. If you are looking for a way to save time, improve your understanding, and increase your productivity, Scholarcy is a great option.
- Scholarcy- [Link](#)

- **Scite**
- **Scite is a free, open-source AI-powered app that helps researchers better discover and understand research articles. Scite does this by providing Smart [Citations](#), which display the context of a [citation](#) and describe whether the article provides supporting or contrasting evidence.**
- To use Scite, simply go to the Scite website and sign up for an account. Once you have an account, you can start searching for research articles. Scite will display a list of articles that match your search criteria, and you can then click on an article to view its Smart [Citations](#).
- You can use Scite to assess the quality and reliability of the literature, avoid citing unreliable sources, and find evidence for or against any hypothesis.
- Scite- [Link](#)

- **Consensus**
- **If you are looking for a way to quickly and easily find answers from scientific research, you might want to try Consensus AI, a new search engine that uses artificial intelligence to extract and distill findings directly from peer-reviewed studies.**
- Consensus AI is a powerful tool that can help you find evidence-based answers from scientific research in a fast and easy way.
- You can also use various features to refine your search and explore more options. Consensus AI can help you save time and effort in finding reliable information from scientific research.
- Consensus- [Link](#)

- **Lateral**
- Lateral is an AI-powered app that can help you with your academic research. It can help you find relevant research, organize your findings, and write better papers.
- Lateral uses artificial intelligence to analyze research papers and identify key concepts, relationships, and trends. This information can then be used to help you find relevant research, organize your findings, and write better papers.
- It helps you organize, search, and save information from collections of articles. You can import articles from various sources, create tags and notes, and use natural language queries to find specific information in your collections.
- You can use Lateral to manage your [literature review workflow](#), keep track of your sources and [citations](#), and access your information anytime and anywhere.
- Lateral – [Link](#)

- **Semantic Scholar**
- It is a free AI-powered academic search engine that helps you find relevant academic papers faster and easier than traditional methods. It uses natural language processing and machine learning to understand your research needs and provide you with smart filters, [citation](#) analysis, and key insights from papers.
- You can use Semantic Scholar to discover the most influential and recent scientific literature in your field, compare different methods and results, and track the impact of your own publications.
- Semantic Scholar- [Link](#)

- **Iris AI**
- It is an AI-powered research assistant that can help you with tasks such as finding relevant articles, summarizing articles, and generating research ideas.
- A comprehensive platform for all your research processing: Smart search and a wide range of smart filters, reading list analysis, auto-generated summaries, autonomous extraction and systematizing of data
- Iris AI -Your Research Workspace- [Link](#)
- **It is important to note that AI-powered apps are not a replacement for human judgment. However, they can be a valuable tool for helping you to find relevant research articles, identify important concepts, and track the development of research over time.**
- If you are interested in trying one of these apps, I encourage you to visit their websites and sign up for a free trial. You can also read reviews from other users to get a better idea of which app is right for you.



- **RAx**
- It is an AI-powered reading assistant that helps you organize, annotate, and collaborate on your research. It helps you fine-tune your literature search, generate summaries, highlight and compare ideas, and share and discuss literature with your team.
- You can use RAx to create different projects for your research topics, import articles from various sources, annotate them with notes and comments, and get personalized suggestions for further reading.
- RAx [Literature Review](#) and Critical Analysis Tool-  
[Link](#)

- **Rayyan**
- Rayyan is an AI-powered app that helps researchers conduct systematic [literature reviews](#).
- A systematic [literature review](#) is a comprehensive research process that involves identifying, evaluating, and synthesizing all the available research on a particular topic.
- It helps you work quickly through even your largest reviews. It lets you de-duplicate, screen, and organize references, as well as collaborate with your team and generate reports.
- You can use Rayyan to import references from various sources, apply inclusion and exclusion criteria, assign labels and ratings, and export your data for further analysis.
- Rayyan- [Link](#)

# **Top AI Tools for Academic Research**

- **Following is a list of the top 10 AI tools for academic research helpful for researchers**
- Scholars and Students have devoted countless hours to [academic research](#) and writing throughout history. Even though researchers now have access to more information and [AI tools](#) than ever before thanks to technology and the internet, it can be challenging to find the right [AI tools for research](#).
- Scholars and researchers require assistance sorting through and organizing sources due to the abundance of information available today. In addition, scholars and researchers must write informative, engaging, and well-written articles and reports due to the ongoing pressure to publish. Here is the list of [AI tools for academic research](#).

- **1. PDFgear**
- As a free AI academic research tool, [PDFgear](#) is quite powerful PDF reader for users engaged in academic research work.
- It can efficiently sort through and organize source pages using its built-in [AI summarizer](#), which accurately extracts key information and locates paragraphs and sentences with archive quotes.
- The best feature of PDFgear (excluding the free-of-charge) is its support for editing research files according to users' needs. Whether it's text replacement, annotating, rewriting, or proofreading of academic research files, PDFgear makes it incredibly easy.

- **2. Consensus:**
- The agreement is a web index that utilizes [Artificial intelligence](#) to find answers for issues raised by logical requests quickly. AI is used to scan peer-reviewed research and extract the main conclusions from each one. Contrasted with manual looking, this gives individuals admittance to material from established researchers all the more quickly. The findings are supported by data from peer-reviewed studies rather than skewed advertising, and there are no advertisements at all in them.
- **3. ChatPDF:**
- Users can converse with a PDF document through the AI application ChatPDF. Without signing in, users can interact with any PDF they own, such as books, research papers, manuals, articles, and legal documents. To comprehend the content of PDF files and provide pertinent responses, ChatPDF makes use of a next-generation AI model comparable to ChatGPT.

- **4. Elicit:**

- Elicit, a machine learning tool, is used by the AI research assistant to help automate research procedures. Without specific keyword matches, it can locate relevant articles and extract important information. Inspire may likewise give different exploration exercises, including conceptualizing, summing up, and text-order, as well as summing up central issues from the report that are pertinent to the client's request

- **5. Trink:**
- Online sentence structure checker and language proofreader Trink artificial intelligence was made for specialized and scholastic composition. It is made to catch errors that other grammar checkers miss, like issues with subject-verb agreement, syntax, word choices, the use of pronouns and articles, and technical spelling. In addition, it incorporates a professional tone, the use of technical words, conciseness that goes beyond grammar and spelling, and style guides.



- **6. Bit.ai:**
- Utilizing the internet to find information is a blessing. The amount of data that is accessible and the fact that it can be found in a variety of formats, such as blogs, essays, films, infographics, and images, present two challenges. Finding and organizing all of the data related to your study's many areas might take a lot of effort.

- **7. SciSpace:**
- SciSpace is a platform driven by AI that lets people read, understand, and submit scientific articles. Its extensive searchable database contains more than 270 million articles, authors, subjects, journals, and conferences. It also offers a variety of paper template choices, a variety of pricing options, and additional services to speed up the printing process.

- **8. OpenRead:**
- OpenRead is an AI-driven interactive platform that enables users to organize, engage with, and analyze a variety of literary forms, including essays, journals, and research materials. The platform has several features, like a Q&A system that responds quickly to questions about articles and the Paper Espresso function, which helps researchers write literature reviews faster by digesting

# Conclusion

- A literature review is an overview of research on a given topic and answers to related research questions
- Literature reviews are an important part of research and should be treated as such
- A well-written literature review:
  - Organizes literature
  - Evaluates literature
  - Identifies patterns and trends in literature
  - Synthesizes literature

**THANK YOU**

**END**



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**For self-improvement, visit  
<https://www.positivepsychology.org.ng/>**

# Resources

- University of Melbourne Information Division:
  - <http://dydo.infodiv.unimelb.edu.au/index.php?view=html;docid=2679;groupid>
- University of Toronto Writing Center:
  - <http://www.utoronto.ca/writing/litrev.html>
- American University Library:
  - [http://www.library.american.edu/Help/research/lit\\_review/index.html](http://www.library.american.edu/Help/research/lit_review/index.html)
- University of California-Santa Cruz Library:
  - <http://library.ucsc.edu/ref/howto/literaturereview.html>