

Navigating the Research Process with Elicit

Have you ever had a hard time collecting papers relevant to your research topic? Do you usually struggle to synthesize information from the literature? Do you find it challenging to identify research gaps or come up with research statements/questions? **Elicit** (<https://elicit.com/>) is a helpful Artificial Intelligence-based tool that can assist you in all these processes.

What Elicit can do:

- **Ask Elicit a research question that you are curious about (1).** See Figure 1. Elicit searches across a large database of academic papers and provides a paragraph summarizing and synthesizing information from the top four papers that might have potentially answered this question (2). Elicit also outputs a table containing these top four papers in addition to other relevant papers (3) and provides a one-sentence summary of their abstracts (4). By clicking on the content of this table, you can see relevant quotes highlighted in the papers (5). Elicit allows you to also display other columns, such as methodology, datasets, main findings, limitations, and future research (6).

The screenshot displays the Elicit web interface. At the top, a search bar contains the question: "What are the benefits of taking l-theanine in combination with caffeine?". Below the search bar, a progress indicator shows "Searching more than 125 million academic papers", "Summarizing the first 4 abstracts", "Add columns", and "Results". A summary box titled "Summary of top 4 papers" provides a synthesized paragraph. Below this, a table lists search results with columns for "Paper", "Abstract summary", "RELEVANT QUOTES", and "Main findings". A sidebar on the right allows users to "Search or create a column" and lists various data columns like "Limitations", "Main findings", "Intervention", etc. Numbered callouts (1-6) highlight key features: 1. Search question, 2. Summary box, 3. Results table, 4. Abstract summary column, 5. Relevant quotes column, and 6. Column selection sidebar.

Figure 1 An overview of the main feature of Elicit.

Additional features of Elicit:

- **Find out more about a topic of interest.** Elicit provides you with a table containing concepts related to a topic that are synthesized from multiple sources. For each concept, Elicit provides you with the links of its sources in addition to the specific quotes that highlight this concept.
- **Upload papers that you already collected.** You can then choose what information you would like to extract from these papers, such as their findings, limitations, etc.

Elicit can help you to:

- **Synthesize information from different sources.** The table visualization of research articles, such as the one in Figure 1, helps you to compare papers based on their methodologies, findings, algorithms, techniques, etc. By identifying similar aspects in these papers, you can generate ideas about how to organize paragraphs/sections in your literature review. By examining the contrasting aspects of these papers, you can generate ways to evaluate them and show some critical thinking in your writing. Such practices would help you write effective and comprehensive literature review sections rather than just listing summaries of research papers.
- **Identify research gaps.** By including the limitations of each study in the table shown in Figure 1, you can identify weaknesses in previous literature, which would help you come up with a research gap and a motivation for a new research project.
- **Come up with your own research statement/question.** Looking at contradictory findings in previous research can inspire you to further explore a specific topic and potentially find a more accurate answer for a research question, which may help resolve the existing conflict.
- **Speed up the process of collecting research articles relevant to a specific topic.** By simply typing the topic that interests you, Elicit provides you with a large number of relevant papers with their corresponding links to download them.

Keep in mind:

As with any other Artificial Intelligence tool, this tool can sometimes provide inaccurate information. Therefore, instead of fully relying on it, you should use it as a starting point in your research process. Once this tool helps you to identify the most relevant research papers and their important aspects, you can thoroughly read these papers and double-check if those aspects seem correct before you draw any conclusions and come up with a research gap/statement/question.

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