

FROM TOPIC TO RESEARCH QUESTION

After choosing a topic and gathering background information, add focus with a research question.

Explore Questions

- Ask open-ended “how” and “why” questions about your general topic.
 - Consider the “so what” of your topic. Why does this topic matter to you? Why should it matter to others?
- Reflect on the questions you have considered. Identify one or two questions you find engaging and which could be explored further through research.

Determine and Evaluate Your Research Question

What aspect of the more general topic you will explore?

Is your research question clear?

Is your research question focused?

Is your research question complex?

**Note* - Research questions must be specific enough to be well covered in the space available. Questions shouldn't have a simple yes/no answer and should require research and analysis.*

Hypothesize

- After you've come up with a question, consider the path your answer might take.
 - If you are making an argument, what will you say?
 - Why does your argument matter?
 - How might others challenge your argument?
- What kind of sources will you need to support your argument?

Sample Research Questions

Clarity

Unclear: Why are social networking sites harmful?

Clear: How are online users experiencing or addressing privacy issues on social networking sites like MySpace and Facebook?

Simple vs. Complex

Too simple: How are doctors addressing diabetes in the U.S.?

Appropriately complex: What are common traits of those suffering from diabetes in America, and how can these commonalities be used to aid the medical community in prevention of the disease?

Focused

Unfocused: What is the effect on the environment from global warming?

Focused: How is glacial melting affecting penquins in Antarctica?

Adapted from: George Mason University Writing Center. (2008). How to Write a Research Question.



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NARROWING A TOPIC

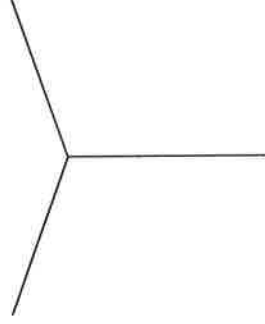
Gather information on the broader topic to explore new possibilities and to help narrow your topic.

Choose an Interesting Topic

You may not know right away what your research question is. If you're interested in your topic, chances are that others will be, too. PLUS, researching will be a lot more fun!

Ask Yourself

- What subtopics relate to the broader topic?
- What questions do these sources raise?
- What is interesting about the topic?
- Who would be interested in the issue?/ Who is your audience?



Gather

Background Information

For a general overview, reference sources may be useful. The database **OneSearch@IU** is also a good place to start narrowing your focus and finding resources (libraries.iub.edu/onesearch).

Reference Sources

A great place to begin your research

- A way to identify potential research topics.
- A starting point to gather information on your topic.
- An introduction to major works and key issues related to your topic.
- Key authors in your area of research.

General Reference Sources

Dictionaries and encyclopedias

- Provide information on a variety of subjects.
- Include definitions that may help you break down and better understand your topic.

**Note*- Reference sources are generally not cited, since they mainly give an overview of a topic.*



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IDENTIFYING KEYWORDS

A *keyword* expresses a central concept or idea about a topic. When you search Google, you are keyword searching.

NOTE-When searching library resources (e.g., databases, library catalog), you may need to be more selective with keywords.

To Identify Keywords:

Identify the major concepts of your topic. Then develop keywords related to the major concepts of your topic.

Databases can be picky about search terms. Identify synonyms for your concept, and consider the words most likely to be used in the database.

Example: the *environmental consequences of fracking*

Concept 1: Fracking

Keywords:

Fracking
Hydraulic fracking
Natural gas drilling

Concept 2: Environmental consequences

Keywords:

Environment
Pollution
Global Warming

Tips For Using Effective Keywords

Concision:

Begin with only 2-3 terms. Avoid long phrases. (The more terms you enter, the fewer results you'll get.)

Synonyms:

If your first term doesn't work, try a synonym or a broader term.

Example: *environment instead of environmental consequences*

Database Search Results:

Do a quick database search. View the search results page to identify relevant terms.

◦ Titles and article abstracts (summaries) include helpful terms.

◦ Most databases list **subject terms**.

Subject terms show how a database organizes records: they can help you locate more items on that topic and related topics.

Background Research:

Do some quick background research. Note terms that are often used to discuss the topic.

(Reference sources like Wikipedia or the library databases Encyclopedia Britannica and Credo Reference offer overviews of many topics. Of course, remember to evaluate information in Wikipedia with particular care.)

The screenshot shows a search interface with the following elements:

- Search title: "Use Subjects to Identify Keyword"
- Search description: "A search for *fracking environment*:"
- Search engine: "Searching: OneSearch@IU"
- Search input: "Keyword - fracking environment"
- Search options: "Search Options ▸ Basic Search Advanced"
- Subject list:
 - hydraulic fracturing (474)
 - oil wells -- hydraulic fracturing (249)
 - government regulation (161)
 - environmental protection (155)
 - natural gas (147)
 - oil wells -- environmental aspects (111)
- Link: "Show More"

A callout box on the right says "Select relevant terms to refine your results." with arrows pointing to the "environmental protection (155)" and "natural gas (147)" items.

BASIC SEARCH TIPS

Too Many Results? Narrow your search.

1. Add Additional Keywords.

In databases, **subject terms** can help you identify more narrow topics and keywords.

2. Choose More Narrow Search Terms.

Examples: •Broader term: law
 •Narrower term: “environmental law” →

3. Use Limiters.

These are things like search fields (title or abstract) publication date, and format type.

4. Search For A Short Phrase With Quotation Marks.

Examples: •“environmental law”
 •“environmental justice”

What Is A Subject Term?

Subject terms describe what a work is about. Every item in a database is assigned one or more subject terms. Subject terms can help you identify effective keywords. Most databases list subjects in their search results.

Too Few Results? Broaden Your Search

1. Choice Of Search Terms

Choosing the right search terms is key.

- Experiment with related terms.
- In databases, **subject terms** can help you identify keywords.
- Use OR to search for multiple related terms at the same time.
(e.g. policy OR law)

2. Too Many Search Terms

Databases can be picky about search terms. Be selective.

- Begin with one or two search terms that best represent your topic.
Then add other terms as needed.
- Avoid long phrases and empty words like “the” and “how.”

3. Too Many Limiters

If you limited the search (e.g. by date or search field), remove the limiters and reassess.

4. Narrow Topic

For highly specific topics, you may locate sources on a broader related topic.

- Examples: •Narrow search: **Bloomington Indiana AND environmental policy**
 •Broader search: **United States AND state government AND environmental policy**

5. Database Choice

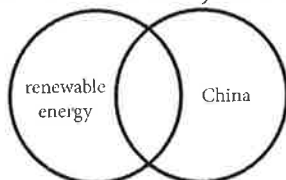
Different databases focus on different topics. Try the “Subjects” tab on the IUB Libraries homepage to view resources for different subjects.

MORE SEARCH TIPS

Boolean Operators

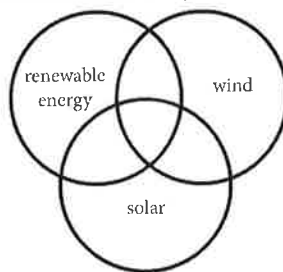
Most library databases use Boolean operators (AND, OR, and NOT). You can use them to **broaden** or **narrow** your search results.

AND searches for records that use both terms and narrows your results.



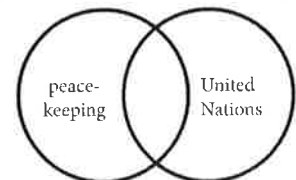
Renewable energy AND China

OR searches for records that use either term and broadens your results.



Renewable energy OR wind OR solar

NOT excludes words from the search and narrows your results.



Peacekeeping NOT United Nations

Database Search Fields

Records in library databases are made of “fields.” Fields can help you **nar-row** your search.

Examples:

- author
- date/year of publication
- title
- subject/descriptor
- abstract
- all text (searches the full text, if available)

Search fields in OneSearch

Improving Search Results With Fields

- Most databases automatically search by keyword (looking for the term anywhere in the record).
- Limit the search field for a term to narrow results.
- Fields are usually in drop down menus.
- If the database has a single search box with no drop down menu, look for an “Advanced Search” option.

Phrase Searching

Use quotation marks or parentheses around search words to search for a phrase.

Example: “*united nations peacekeeping forces*”

Nesting

Use parentheses to put search words into sets. Terms in parentheses are processed first. Use nesting with AND, OR, and NOT.

Example:
success AND (education OR employment)

Truncation

Broaden your search to include variant word endings and spellings. Enter the root of the word then the truncation symbol [usually an asterisk (*)].

Example: *elect** = *election, electoral, elections*

Wildcards

Substitute a symbol for just one character. The most commonly used wildcard symbol is a question mark (?).

Example: *wom?n* = *woman, women*



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