

So You Can't Find the Research You Need... Now what?

Some research topics are easy to search for, allowing you to retrieve relevant results with little effort. As your topics become more complex or relate to smaller fields of study, however, you may need to implement more sophisticated searching tools to get what you need. In this handout, I offer five quick tips on how to accomplish this.

Tip 1: Find Synonyms

Probably the most impactful way you can expand your search results is by considering all of the various ways in which someone might have phrased your topic.

While there are a few topics or ideas that are only represented by a single word, in most cases there are many ways to say the same thing.

For instance if your research topic is *the effects of mindfulness on traumatic stress in first responders* the synonyms you might need to search include:

Mindfulness and meditation

Stress related, anxiety, and traumatic stress

First responder, paramedic, firefighter, and police officer

Including all these words in your search (instead of just one or two) will drastically increase the number results you get and help you to really tap into the existing research on a topic.

If you struggle to think of different words to express the concepts in your question, take advantage of free thesauruses online, or just do some general searching in a database to help you get a feel for the language that is being used to describe the topic you're interested in.

Tip 2: Truncate

Truncation is a tool that allows you to search the root of a word and then have the database fill in any possible endings in order to account for any variations of that word that may exist.

For example the root of meditation is simply *meditat*.

When I type *meditat** into a database, it tells the database to retrieve any item that includes a word that starts with that root. In the case of meditation this would include *meditation, meditate, meditating, and meditated*.

meditation
meditate
meditated
meditating

} ***meditat****

The trick to using truncation effectively is to make sure that you truncate the word at the best location. In this case simply adding an asterisk to the end of the word *meditating** would have no effect because there are no words that begin with meditating and have alternate endings. You would not, for instance, see the word *meditatinged* or *meditatings*.

On the other hand, truncating a word too far will result in you retrieving a lot of irrelevant results. For example if you truncated *meditation* down to *medi**, your search would include words like *medical* and *medieval*, which are clearly not relevant to your research question.

So always try to truncate a word enough to capture as many of its variations as possible, while excluding any other words that may start with the same letters.

Tip 3: Phrase Search

Phrase searching allows you to narrow your results by forcing greater specificity in the database's interpretation of the search terms you've included.

first responder vs "*first responder*"

Specifically, whenever the search term you're using has more than one word in it, like the term *first responder*, phrase searching commands the database to search the words *first* and *responder* side-by-side, rather than searching them separately, as in *first* and *responder*.

Phrase searching is done by wrapping your search terms in quotation marks.

Tip 4: Use Boolean Operators

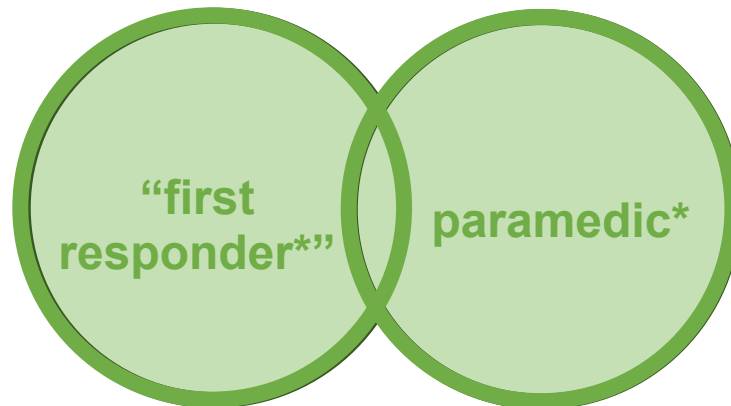
Boolean operators are commands that tell the database how you want your synonyms and the components of your question to be combined.

You're probably already aware that simply typing all the possible terms related to a research question into a database in a block of text would not be an effective way to perform a search. Instead, you want to combine the terms in a meaningful way, such that the database uses *one term from each component of the research question*.

While there are actually 3 Boolean operators, for the purposes of this handout I'm going to focus on just two of them: OR and AND.

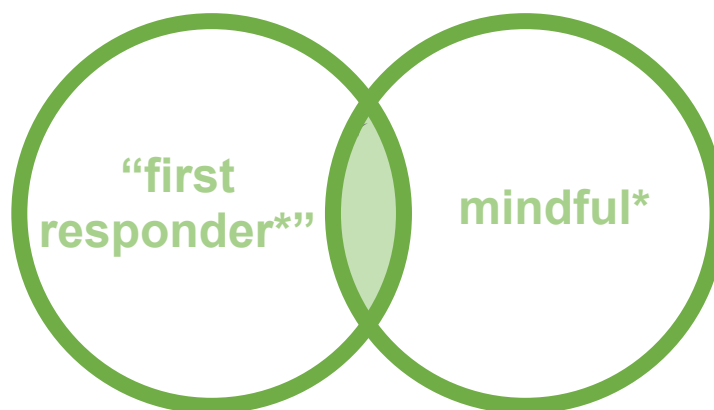
Boolean Operator OR

OR is used to combine synonyms in a search. When searching *first responder OR paramedic*, you are directing the database to retrieve any item that includes *either one or both* of those terms. In this way you end up creating a single search line that captures all the terminology you have related to that component of your research question.



Boolean Operator AND

AND is used to combine different components of research question. If you tell the database to search *first responder AND mindfulness*, you're telling it to retrieve any item that includes *both terms, but neither one alone*. This narrows the search results to only include items in the database that are relevant to both (or all) components of a research question.



Combining Boolean Operators

The real magic, however, happens when AND and OR are used together to create a single search that taps into only those articles that are represented in both the synonyms you've searched and the components of your research question.

For example if you tell the database to search:

*This handout is based on a video with the same content and content creator.
The video can be accessed through you UNB Libraries YouTube channel at: [LINK](#)*

“first responder” OR paramedic* OR firefighter* OR “police officer*”*

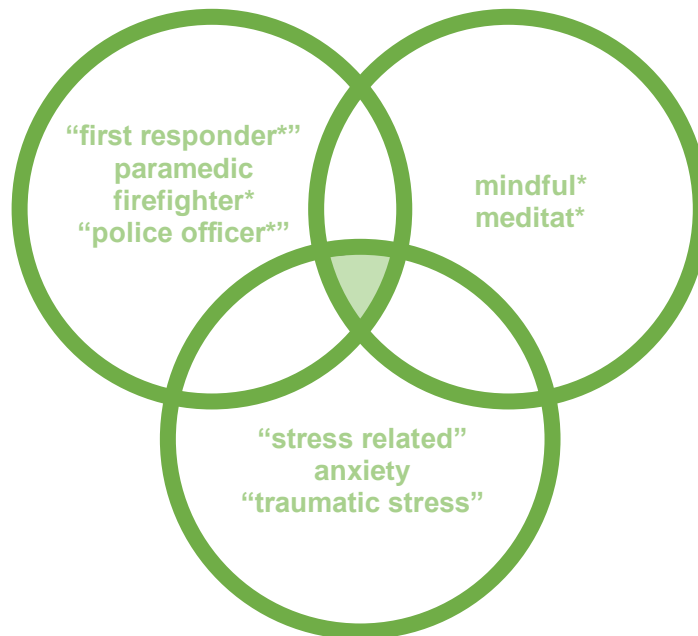
AND

mindful OR meditat**

AND

“stress related” OR anxiety OR “traumatic stress”

The database will retrieve any item that uses *at least one term from each components of the research question*, which is represented by this small section between the three circles in the Venn diagram below.



For example, a search like this would retrieve items about:

First responders, meditation, and anxiety
Firefighters, mindfulness and stress-related
Paramedics, meditation, and traumatic stress

All together, this search is the equivalent of having done 24 individual searches in the same database, and has the advantage of not showing the duplication that you would see in that kind of serial searching approach.

Tip 5: Search multiple databases at once

On the EBSCO database platform, it's possible to search multiple databases simultaneously.

For example, in the case of this research question, you might want to look in databases for psychology, occupational therapy, and medicine, and we have databases for all those fields in our EBSCO database selection: *PsycINFO*, *Sport Discus*, and *CINAHL* respectively.

Proof of Concept

Before I created this handout, I performed each of these searches in one of our EBSCO databases.

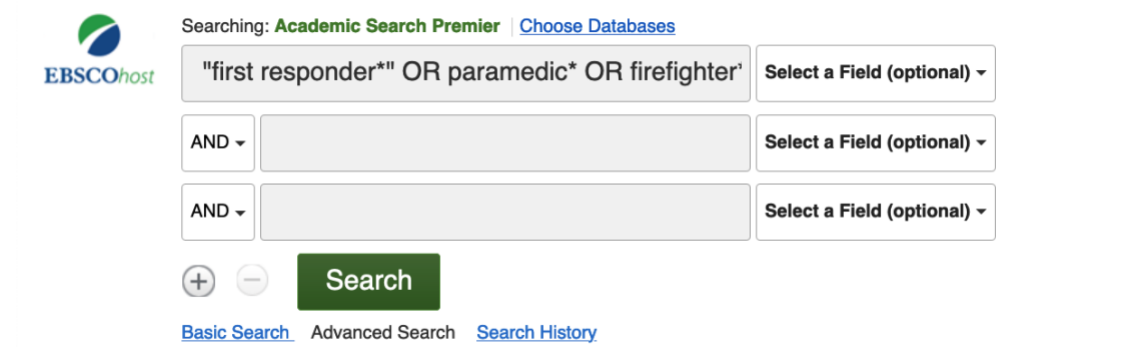
I want to take a moment to show you how much of a difference each of these commands makes in a live database search.

First responder	2,938
"First responder"	489
"First responder*"	3,896
"First responder*" AND mindul*	24

This style of searching takes us from 2,938 results that were (1) probably mostly not relevant and (2) didn't include some of the research related to first responders, down to a search with only 24 results that is both more comprehensive and more relevant.

Of course, this is only a fraction of what the final search will look like, and it only gets better from here.

What this Actually Looks Like



The screenshot shows the EBSCOhost search interface. At the top left is the EBSCOhost logo. The search bar contains the query: "first responder*" OR paramedic* OR firefighter". To the right of the search bar is a dropdown menu labeled "Select a Field (optional)". Below the search bar are two additional search rows, each with an "AND" dropdown and a "Select a Field (optional)" dropdown. At the bottom of the search bar is a green "Search" button. Below the search bar are links for "Basic Search", "Advanced Search", and "Search History".

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This initial search was performed in Academic Search Premier, which is a well-rounded multidisciplinary database offered on the EBSCO platform.

In the first image, all the terms related to first responders (including appropriate truncation and phrase searching) are listed in the first row in the search box and connected by the Boolean operator OR.

Note that I've capitalized the OR command in my search string. This is both in order to differentiate it from the search terms surrounding it, and because *while not all databases require these terms to be capitalized, some do*, so defaulting to always capitalizing your Boolean operators is a good practice to get into.\

The screenshot shows the EBSCOhost search interface. At the top left is the EBSCOhost logo. The search bar contains the following text: "first responder*" OR paramedic* OR firefighter". To the right of the search bar is a dropdown menu labeled "Select a Field (optional)". Below the search bar are three rows of search terms, each preceded by a dropdown menu set to "AND":
1. "first responder*" OR paramedic* OR firefighter*
2. mindful* OR meditat*
3. "stress related" OR anxiety OR "traumati"
Each row has a "Select a Field (optional)" dropdown menu to its right. At the bottom of the search bar is a green "Search" button. Below the search bar are links for "Basic Search", "Advanced Search", and "Search History".

In this next image, I entered the mindfulness terms in the second row, and the stress terms in the third row. In EBSCO, as in most academic databases, rows default to being connected by the Boolean operator AND, negating the need to type it in manually.

So you can see in this search that I now have three rows, the first of which relates to the first responder component of my research question and all of its related synonyms, the second which relates to the mindfulness component and *its* related synonyms, and the last of which relates to the stress portion of my question.

Together what these three lines do is tell the database to retrieve any item in its records that include at least one term from each search line. In most cases, when this is done correctly, you'll find that this produces a tight, focused search that retrieves many good articles on the related topics efficiently and effectively.

Adding other databases to the search

The screenshot shows the "Choose Databases" dialog box in EBSCOhost. The title is "Choose Databases" with a help icon. Below the title is the text "Detailed View (Title lists included)". There are two buttons: "OK" and "Cancel". Below the buttons is a list of databases with checkboxes and right-pointing arrows. The "Academic Search Premier" checkbox is checked. The list includes:
- Abstracts in Social Gerontology
- Academic Search Premier (checked)
- America: History & Life
- American Antiquarian Society (AAS) Historical Periodicals Collection: Series 1
- American Antiquarian Society (AAS) Historical Periodicals Collection: Series 2
- American Antiquarian Society (AAS) Historical Periodicals Collection: Series 3
- Criminal Justice Abstracts
- eBook Academic Collection (EBSCOhost)
- eBook Collection (EBSCOhost)
- EconLit
- ERIC
- European Views of the Americas: 1493 to 1750
- Health and Psychosocial Instruments
- Health Source - Consumer Edition

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The last step is to incorporate multiple databases into the search. This is accomplished by clicking the *choose databases* option at the top of the screen, selecting any additional databases in relevant subject areas: in this PsycINFO, CINAHL and SportDiscus.

What this search yields is 61 articles available across the four platforms many of which are relevant to the research question. As you can see below, the top two articles retrieved include one on PTSD and mindfulness in firefighters, and one on mindfulness facets, mental health, and police officers. Many other results of this search were similarly relevant, although in all cases of advanced searching you will find that some irrelevant articles make it through regardless of how good your search strategy is.

The screenshot displays a search results page with the following elements:

- Search Results: 1 - 50 of 61
- Relevance ▾
- Page Options ▾
- Share ▾
- Article 1: **1. Posttraumatic **stress** disorder symptoms and **mindfulness** facets in relation to suicide risk among **firefighters**.**
- Article 2: **2. **Mindfulness** Facets and Self-Compassion as Moderators of the Relationship Between Occupational Stressors and Mental Health Symptoms in Canadian **Police Officers**.**

Each article entry includes an 'Academic Journal' icon, a thumbnail of the article's metadata table, and links for 'HTML Full Text' and 'PDF Full Text (461KB)'. There are also document and folder icons to the right of each title.