Hello, and welcome to the Evans Library Conducting Research series. In this module, we will discuss basic search strategies for academic research.
You can search most information tools using basic keywords or search terms to return LOTS of results.

Or, you can use some simple strategies to perform the most effective searches.

Search strategies help you find the most valuable results with minimal effort.

You can search most information tools using basic keywords or natural language to return hundreds or thousands of results.

Or, you can use some simple strategies to perform the most effective searches.

Using search strategies points you to the most valuable results with minimal effort, and eliminates the need to sift through unusable results.
The five basic search strategies that we will talk about today are help, Boolean operators, nesting, truncation, and controlled vocabulary.

Most databases support some or all of these strategies, and so do many Internet resources.

We will talk about each of these strategies.
Every database provides some sort of help with basic and advanced searches.

Some offer help links, or icons, such as question marks, which display tutorials, information about supported search strategies, and tips for using the database to perform effective searches.
This database contains a help link...

...and context-sensitive help icons that display information that is relevant to specific features.
This particular help system lets you search or browse a list of topics.
Most Internet search engines also offer help.

Google Scholar’s help can be found by clicking About Google Scholar...
...and then Google Scholar Help.
Search strategies are not limited to databases! You can learn how to make your database AND Internet searches much more powerful, just by reading the help!
The second basic search strategy is Boolean operators.

Join your search terms with the Boolean operators AND, OR, or NOT to either narrow or broaden your search results.
Joining search terms with **AND** finds results that contain both terms.

For example, searching steroids **AND** sports will retrieve items that contain both of these terms, but not those that contain **only** sports or **only** steroids.

AND narrows your search results by eliminating items that contain only one of the specified terms.
Joining search terms with **OR** finds results that contain either *one* term, or the *other*, or *both* terms.

A search for cars OR autos will return items that include either cars or autos, or both, in the record.

Using OR is an easy way to expand your search to include variations in terminology.
Joining search terms with **NOT** will eliminate results that include a particular term.

For example, a search for virus **NOT** aids will retrieve all the records containing the word virus, excluding those records that contain the word Aids.

Using **NOT** drastically narrows results!
The third basic search strategy is nesting.

Nesting groups related terms inside parentheses, to clarify the order of the search. Grouped terms are searched first, as in a mathematical equation.

Nesting clarifies results, by allowing you to search for either one or another term first, and then combine with a third term.
A search for success AND education OR training will find items that either include both success and education, or those that contain training in their records.
...but nesting uses parentheses to put your search terms into sets.

Grouping education OR training together with parentheses lets the database find items with either education or training in their records first, and then adds the term success to that set of results.
4. Truncation

- Finds alternate spellings
- Uses a symbol to replace one or multiple characters
- Wildcards * ? $
- Expands results

The fourth basic search strategy is truncation.

Truncation lets you use a symbol at the beginning, end, or within a root word to take the place of one or multiple characters, depending on the system. Common symbols are the asterisk, question mark, and dollar sign. Use the help to find out which are supported.

Truncation expands results by finding various endings or spellings of your search terms.
Truncation

engin*

- engine
- engineman
- enginer
- engine’s
- engines
- engineer

- engineered
- engineers
- engineer’s
- engineering
- enginery
- enginous

For example, using the asterisk to replace any character after the root word “engin” will return many endings of the word...
...and using a dollar sign to replace zero or one character will return both the American and British spellings of the word behavior.

Again, check the tool's help to find out which truncation symbols are supported.
The last search strategy is controlled vocabulary.

Most databases provide a thesaurus or list of subject headings to use within the database. These lists contain the words that have been identified as *standard terms* within a given discipline.

Controlled vocabulary is different for each tool – you can’t necessarily use the controlled vocabulary for the Library catalog in another database. Each has its own.

Performing controlled vocabulary searches narrows results, because you are looking for a standardized term in one particular field of the items’ records.
To do a controlled vocabulary search, first identify the controlled vocabulary term.

In this database, controlled vocabulary is called Subject Terms...

...and a list is provided for browsing or searching.
Enter the controlled vocabulary term in your search...

...and target the controlled vocabulary field. This is typically called the Subject or Subject Heading field, but check the tool’s help to be sure.
Now all of your results contain the term “nanoparticles” in the records’ Subject fields.

Looking at article records is another good way to identify controlled vocabulary terms.
The Evans Library catalog uses the Library of Congress Subject Headings as its controlled vocabulary.

Use the Subject field to do a controlled vocabulary search.
...and retrieve very specific items as a result of your searches!
We hope that this session has been helpful to you. Please remember to ask a librarian for help with search strategies.