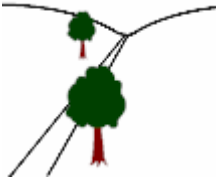


Proximity Operations



As discussed in the unit on *The Problems of Language*, phrasing and word proximity present an occasional challenge for the searcher. All search systems provide some way to specify word proximity, although the choices may be quite limited. These are *some* the general types of proximity operations available:

Same Field

This is not a common operator. It retrieves records when the specified terms are found in the same field. While this isn't very specific, it does eliminate those cases where a word might be wildly out of context if it occurred in different field than the other terms (think of the last name "Floss" discussed in a previous example).

Same Sentence

This is a very useful operation. If terms occur in the same sentence, then there is undoubtedly some relationship between them. Since phrasing is often quite variable (*...calcium absorption.../...absorption of dietary calcium...*) limiting terms to the same sentence is sufficient for increased precision.

Within a Specified Distance, but in any order.

This is probably the most useful proximity operation. Like the sentence operator the words can be in any order, but you can control how far apart they can be. There will be times when too great a distance between words, even when they are in the same sentence, changes the context, particularly in very long sentences.

Here's an illustration of the problem:

In these sentence fragments, the words management and pain are fairly close together and are used in the context of "*pain management*":

- There is substantial evidence that tricyclic antidepressants are effective in the **management** of chronic **pain**, ...
- **Pain management** practices for ...
- ... responsible for **pain** and symptom **management** during ...

But in the following sentence fragments the words are far apart in the sentence and the context of "*pain management*" disappears:

- Drugs used for **managing** rheumatoid arthritis (RA) are designated disease-modifying antirheumatic drugs (DMARDs) if they reduce inflammation and **pain**, limit joint destruction, and improve long-term ...
- Suppression of emotion, anger in particular, may be linked to heightened **pain** intensity during a subsequent **painful** event, but it is not clear whether an individual's anger **management** style ...

- Comparison of early dobutamine stress echocardiography and exercise electrocardiographic testing for **management** of patients presenting to the emergency department with chest **pain**.

Within a Specified Distance and in the order specified.

Sometimes two words must occur in an exact phrase or they won't be in the desired context (e.g. "hearing aid"). Sometimes the order in which the words occur will affect the probability that the item is relevant. For example, if one is discussing the vitamin content of a food or some other substance, the word vitamin will usually occur before the word content:

- ... the vitamin D content of ...

If the word content occurs before the word vitamin, then the probability that it is the vitamin content of something goes down:

- ... forage and nonfiber **carbohydrate contents** influence B-**vitamin** intake ...
- Monovalent **electrolyte content** in **vitamin** E-deficient rats ...
- Serum **C3 content** in **vitamin** B(12)-deficient rats.
- Changes in **contents** of carotenoids and **vitamin** E during tomato processing.
(this last sentence is still about vitamin content!)

Simple Adjacency

As already noted, words must sometimes be in an exact phrase or they just aren't relevant: "hearing aid", "sodium chloride". Many systems provide an operator to handle these situations even though they may be quite rare.

CAUTION: KNOW THE DEFAULT OPERATION!

What happens when you enter two words without using an operator? If you enter "lung cancer" for example, does the system process it as ...

- Lung **OR** Cancer
- Lung **AND** Cancer
- Lung **ADJACENT TO** Cancer
- Lung **IN THE SAME SENTENCE AS** Cancer



There is no common default search among search systems. You must know how each system works. Unless you are positive about how a search is processed, always use an operator between terms.



Proximity and Default Operations in EBSCOHost, Web of Science, CSA Illumina, and CLIC



EBSCOHost

- **Near Operator (N#)** - finds the words if they are within # words of one another regardless of the order in which they appear.

For example, type **calcium N5 absorption** to find results that would match calcium absorption as well as absorption of calcium.

- **Within Operator (W#)** finds the words if they are within # words of one another and in the order in which you entered them.

Note the number specifies the maximum number of intervening words: thus N0 or W0 requires the words to be adjacent.

- **Exact Phrase:** Use quotation marks to search an exact phrase “hearing aids”.
 - This is equivalent to using **w0**
- **Default operation: AND**



Web of Science

- **SAME** finds records where the terms separated by the operator appear in the same sentence. A sentence is defined as:
 - the title of an article
 - a sentence in the abstract
 - a row in the MeSH Terms table or the Chemical table
- **Exact Phrase:** To search for an exact phrase, enclose the phrase in quotation marks.
 - This applies only to *Topic* and *Title* searches.
 - Note that stopwords are ignored in exact phrase searches. If the phrase contains a stopword, then the search will find phrases that contain any word in the position of the stopword. For example, "mind over matter" will find mind over matter, mind and matter, mind upon matter, and so on.
- **Default operation: AND**
 - If you enter a phrase without quotation marks, the search engine will retrieve records that contain all of the words you entered, but not in any particular proximity or order.



CSA Illumina

- **WITHIN "X"** Find words within a specified distance, e.g., carbon within 3 fiber retrieves records that contain carbon and fiber in any order and within a three word radius of one other. Any number may be used to determine the proximity radius.
- **NEAR** Find words within 10 words of each other, e.g., (women near violence) retrieves records that contain women and violence in any order and within a 10 word radius of one other. Note: near is the same as within 10.
- **BEFORE** Finds words in a relative order, e.g., social before security. Note: adjacency is not implied.
- **AFTER** Finds words that contain words in the relative order specified with the after expression, e.g., scope after science. Note: adjacency is not implied.
- **Default operation: Adjacent**
 - No Operator Find words as a phrase, e.g., life stage transitions retrieves records containing the three words immediately adjacent to one another and in the same order.



CLIC (Creighton Library Catalog)

- **SAME** – Unicorn locates records in which a bibliographic record field contains all of the specified terms.
- **WITH** – Unicorn locates records in which a field contains a sentence with all of the specified terms.
- **NEAR** – Unicorn locates records in which a field contains all of the search terms adjacent to each other; however, the order of the terms does not have to match the order they were entered.
 - **NEAR#** (near1, near2, near3, etc) – Specifies the maximum number of intervening words.
- **ADJ** – Unicorn locates records in which a field contains all of the search terms adjacent to each other and in the order they were entered.
 - **ADJ#** (adj1, adj2, adj3, etc) – Specifies the maximum number of intervening words (in the specified word order).
- **Exact Phrase:** Use double quotes to find an exact phrase, for example: "creighton university," "popular culture," or "human rights".
- **Default operation: SAME**

