Google Scholar for KS Searching

The proprietary nature of Google's searching algorithm makes it difficult to get the full picture of Google Scholar's usefulness as a tool for grey literature searching, particularly in knowledge synthesis (KS) projects. However, some experimentation and research performed by knowledge synthesis specialists offer some insight. If Google Scholar is going to be used for grey literature searching in knowledge synthesis, consider the following:

- When performing a title search, up to 43% of the results retrieved may be grey literature (a full text search would be about 19% grey lit and is not advised).
- It should not be used as the sole source for grey literature, as it often misses important research that might be caught by other sources.
- The highest density of grey literature in a Google Scholar search appears at around page 35, so it is not advised to limit you review of the results to the first 50-100 (as is sometimes done in Google searching for KS work).
- Google Scholar searching works differently than typical database searching and these differences need to be accounted for in any strategy that is developed. See the next page for details about how searching in Google Scholar is similar to / different from traditional academic databases.

Additional resources:

For a review of the advantages and disadvantages of using Google Scholar to search for peer-reviewed articles in your knowledge synthesis, please see Using Google Scholar in Evidence Synthesis.

KS Searching in Google Scholar

Synonyms:

Google Scholar has some ability to infer synonyms for search terms into its search *and will do so regardless of any commands you give it*, however this ability is very limited. It should not be relied upon to satisfy the need to include synonyms in your search.

Truncation:

Google Scholar does not recognize truncation symbols. It does have some ability to automatically infer truncation, but does not do so reliably and cannot be counted on to replace different word forms in your search. Therefore, in Google Scholar, different word forms that would otherwise be truncated should be treated as synonyms and combined using Boolean Operators.

Phrase Searching:

Phrase Searching in Google Scholar is implemented by putting quotation marks around the search terms and performs as expected.

Boolean Operators:

Google Scholar allows the use of Boolean operators, but is unusual in how it interprets them. In a typical database search, the using the operator OR between two search terms directs the database to return all results that use *one or both* of the terms being searched. When used in Google Scholar, it only returns results that use *one but not both* of the terms being searched. In order to obtain results that use *one of both* terms, you have to do the same search twice – once using OR and once using AND – and combine the results manually. This will typically require many serial searches, especially in searches where multiple search terms and Boolean operators are being employed.

For example:

"wonka vite" returns 29 results
"vite wonka" returns 2 results

For a total of 31 results

However, **"wonka vite" OR "vite wonka"** only returns 30 results

To obtain the final 1 results, **“wonka vite” AND “vite wonka"** must also be searched.

Parenthetical Searching:

Google Scholar does allow the use of parentheses in searching. Assuming you’ve applied Boolean operators as described above, parentheses may be used similarly to how they are implemented in other databases.

A Couple Other Quirks:

- Search strings are limited to 256 characters
- Only the first 1000 results of a search may be viewed, regardless of the number of items that are found by the search