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*LEABHARLANN CHOLÁISTE NA TRÍONÓIDE,
OLLSCOIL ÁTHA CLIATH*

LIBRARY HITS:
THE LITERATURE REVIEW PROCESS

Isolde Harpur

*With thanks to Maeve Gallagher (SLD), Margaret Rooney
(Library), and Greg Sheaf (Library) for their input*

Michaelmas Term 2017

SESSION OVERVIEW



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- **Definition of a literature review**
- **What is the difference between a literature review and a systematic review?**
- **Challenges in conducting a literature review**
- **Assembling a research question**
- **Disassembling a research question prior to searching**
- **Identifying the data**
- **Library supports**

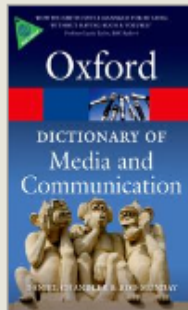
LITERATURE REVIEW – A DEFINITION



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“A formal, reflective survey of the most significant and relevant works of published and peer-reviewed academic research on a particular topic, summarizing and discussing their findings and methodologies in order to reflect the current state of knowledge in the field and the key questions raised.”



A Dictionary of Media and Communication

Daniel Chandler and Rod Munday

Publisher: Oxford University Press

Print ISBN-13: 9780199568758

Current Online Version: 2014

Print Publication Date: 2011

Published online: 2011

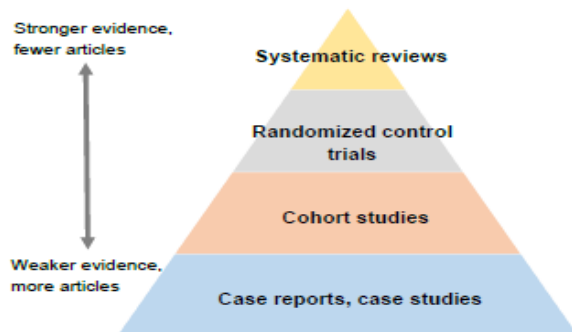
eISBN: 9780191727979

DIFFERENCE BETWEEN A SYSTEMATIC REVIEW AND A LITERATURE REVIEW

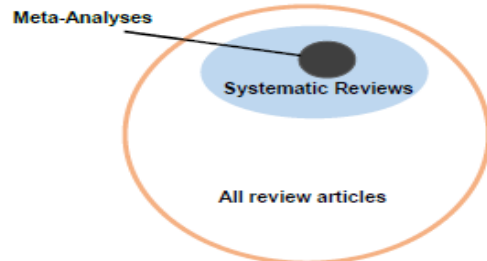
What's In a Name?: The Difference Between a Systematic Review and a Literature Review and Why It Matters

Lynn Kysh, MLIS • Information Services Librarian • University of Southern California, Norris Medical Library

A note about evidence... In evidence-based practice, systematic reviews are considered one of the highest levels of information.



A note about meta-analyses... A meta-analysis is the use of statistical methods to combine data from studies included in a systematic review. Not all systematic reviews include a meta-analysis.



Librarians expertly understand information needs and are able to connect questions to the appropriate publications. However, faculty, students, and clinicians often do not have as much practice in this set of skills. The common confusion between systematic reviews and literature reviews exemplifies this disconnect. True, both systematic reviews and literatures combat information overload in the health sciences by providing summaries of the literature published on a topic. However, they vary significantly in terms of goals, components, and value in research, publication, and evidence-based practice. Librarians can work against this disconnect by educating their library patrons of these key differences and thereby support research and evidence-based practice.

	Systematic Review	Literature Review
Definition	High-level overview of primary research on a focused question that identifies, selects, synthesizes, and appraises all high quality research evidence relevant to that question.	Qualitatively summarizes evidence on a topic using informal or subjective methods to collect and interpret studies.
Goals	Answer a focused clinical question Eliminate bias	Provide summary or overview of topic
Question	Clearly defined and answerable clinical question Recommend using PICO as a guide	Can be a general topic or a specific question
Components	Pre-specified eligibility criteria Systematic search strategy Assessment of the validity of findings Interpretation and presentation of results Reference list	Introduction Methods Discussion Conclusion Reference list
Number of Authors	Three or more	One or more
Timeline	Months to years Average eighteen months	Weeks to months
Requirements	Thorough knowledge of topic Perform searches of all relevant databases Statistical analysis resources (for meta-analysis)	Understanding of topic Perform searches of one or more databases
Value	Connects practicing clinicians to high quality evidence Supports evidence-based practice	Provides summary of literature on a topic

CHALLENGES IN CONDUCTING A LITERATURE REVIEW



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- **Knowing where to start, (e.g. wide then narrow, or narrow then wide?)**
- **Knowing what to include**
- **Knowing when to stop literature searching**
- **Knowing how far to venture into the literature of associated domains**

ASSEMBLING A RESEARCH QUESTION



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A Research Question should be:

- **Specific**
- **Focused**
- **Clearly formulated**
- **Well defined (leaving no room for ambiguity or interpretation)**

RESEARCH QUESTION EXAMPLES



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Example 1:

Why are social networking sites harmful?

Example 2:

How are online users experiencing or addressing privacy issues on such social networking sites as Twitter and Facebook?

Example 3:

What is the effect on the environment from global warming?

Example 4:

How is glacial melting affecting penguins in Antarctica?

EXAMPLE 1



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Why are social networking sites harmful?

- Doesn't specify which social networking sites
- What kind of harm the sites are causing
- Assumes that this “harm” is proven and/or accepted

Exercise developed by Dr Derek Richards - Systematic Literature Reviews presentation, Student Learning Development, TCD

EXAMPLE 2



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How are online users experiencing or addressing privacy issues on such social networking sites as Twitter and Facebook?

- Specifies sites (Twitter and Facebook)
- Type of harm (privacy issues)
- Who the issue is harming (users)

Exercise developed by Dr Derek Richards - Systematic Literature Reviews presentation, Student Learning Development, TCD

EXAMPLE 3



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What is the effect on the environment from global warming?

So broad that it couldn't be adequately answered in a book-length piece, let alone a standard college-level paper

Exercise developed by Dr Derek Richards - Systematic Literature Reviews presentation, Student Learning Development, TCD

EXAMPLE 4



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How is glacial melting affecting penguins in Antarctica?

- narrows down to a specific cause (glacial melting)
- a specific place (Antarctica)
- a specific group that is affected (penguins)

Exercise developed by Dr Derek Richards - Systematic Literature Reviews presentation, Student Learning Development, TCD

DISASSEMBLING THE QUESTION



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Prior to searching any resource, look at your topic and decide:

- **What are the primary keywords/phrases in my topic?**

Make a list of the primary keywords including the synonyms

- **What alternative keywords or synonyms represent each of these key topics?**

Use a thesaurus or ask a friend!

IDENTIFYING THE DATA – LIBRARY RESOURCES

The Library of Trinity College Dublin gives you:

- **Stella Search and other catalogues**
- **Quality assured databases**
- **Bibliographies of existing reviews and eligible studies**
- **“Grey literature” (internal documents, reports, conference proceedings)**
- **Theses**
- **Key journals for hand searching**



- **Stella Search +**
 - **Classic Catalogue**
 - **Accessions Catalogue (1872-1964)**
 - **1872 Catalogue Online (pre 1872)**
 - **MARLOC – 20,000 manuscripts & archives from 13 C**
 - **Digital Collections - books, maps, paintings, manuscripts & photographs**

MORE ABOUT STELLA SEARCH



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- **Works like a search engine**
- **Includes printed and electronic resources**
- **Most relevant results can be retrieved and then refined**
- **Gives direct links to articles (where available)**

Click on ***Library Catalogue Only*** to find titles of printed/electronic books and journals held in the Library

Tip: Do not rely on Stella Search for database searching as currently Stella Search does **not** index all our databases:

DATABASES NOT CURRENTLY IN STELLA SEARCH

Including but not limited to:

American Chemical Society: SciFinder (Chemical Abstracts)

American Mathematical Society: MathSciNet

Brepols Publisher: International Medieval Bibliography, Library of Latin Texts, etc. *

Elsevier: Compendex, EMBASE

Euromonitor: Euromonitor Passport

ProQuest: Dissertations, Archives, Newspapers, Periodical Databases, etc.

Thomson: BIOSIS Previews, Zoological Record

Westlaw



Library subscribes to 350+ databases

Identify databases relevant to your subject area. You can search by subject and by name of database

USING DATABASES EFFECTIVELY



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Controlled vocabulary (standardised subject terms assigned to units of information) vs keyword searching (your own words)

- **Controlled vocabulary (where available) retrieves all items indexed under a particular topic but can miss out on jargon, slang, newer terms and the very latest articles if subject terms have not yet been assigned**
- **Keyword searching ensures you don't miss these but it can lead to a lot of irrelevant results**

To get the best of both worlds use a combination of the two. Ask your Subject Librarian for advice on how best to do this

CONTROLLED VOCABULARY



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Subject headings and thesauri are examples of controlled vocabulary.

In PubMed, MeSH – Medical Subject Headings

In CINAHL, CINAHL Headings

In PsycINFO, PsycINFO Descriptors

In ERIC, ERIC Descriptors

However:

Not all databases have controlled vocabulary (e.g. JSTOR)

MESH – CONTROLLED VOCABULARY



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MeSH (Medical Subject Headings) is the NLM controlled vocabulary thesaurus
used for indexing articles for PubMed.



For example when searching for German Measles it recommends
you use the term Rubella.

JSTOR – NO CONTROLLED VOCABULARY



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The popular database JSTOR does not have controlled vocabulary so you need to depend on good searching skills to get the best results. Below is what JSTOR advises:

How can I search JSTOR?

There are many detailed searching tips available in our Tutorials section, from how to use quotations to search exact phrases to searching plural terms efficiently. We recommend you take a look at our advanced search documentation for some ideas.



USING DATABASES EFFECTIVELY (CONTINUED)



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- Think of synonyms or use truncation (usually an asterisk)
- Use Boolean Operators (AND, OR, NOT)
- Narrow or broaden a search
- Decide on a reference management software package (EndNote for example) to import your results from across multiple databases

SYNONYMS



- Searches for well-defined terms – medical conditions, for instance – are normally quite simple. They generally have a standardised index term, and only a few synonyms
- But searches for “softer” terms are much, much harder, as there are often so many variations of the idea it could be

I’m looking for “people’s experiences of...”

- Most searchers will only search for the exact word “experiences”

But what words could it be?



As well as “experiences”, ANY of the below could be used instead in an article:

**experience OR experiences OR experienced
OR view OR views OR viewpoint OR
viewpoints OR perception OR perceptions
OR perceive OR attitude OR attitudes OR
belief OR beliefs**

...you can probably think of more

BOOLEAN OPERATORS



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AND

OR

NOT (use with caution)

These three Boolean operators allow you to combine terms to narrow or broaden your search

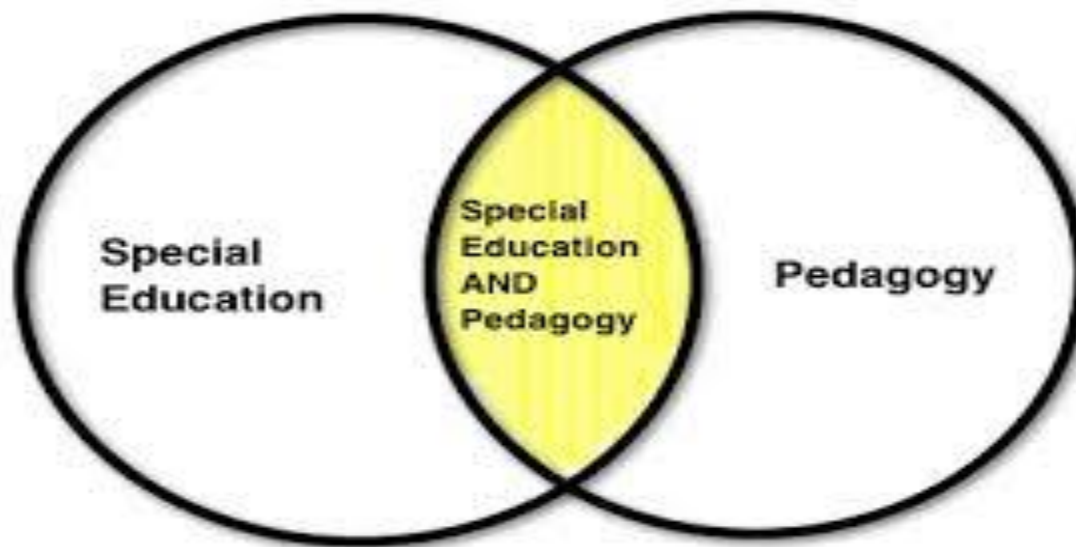
BOOLEAN OPERATORS



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AND - narrows (combines)



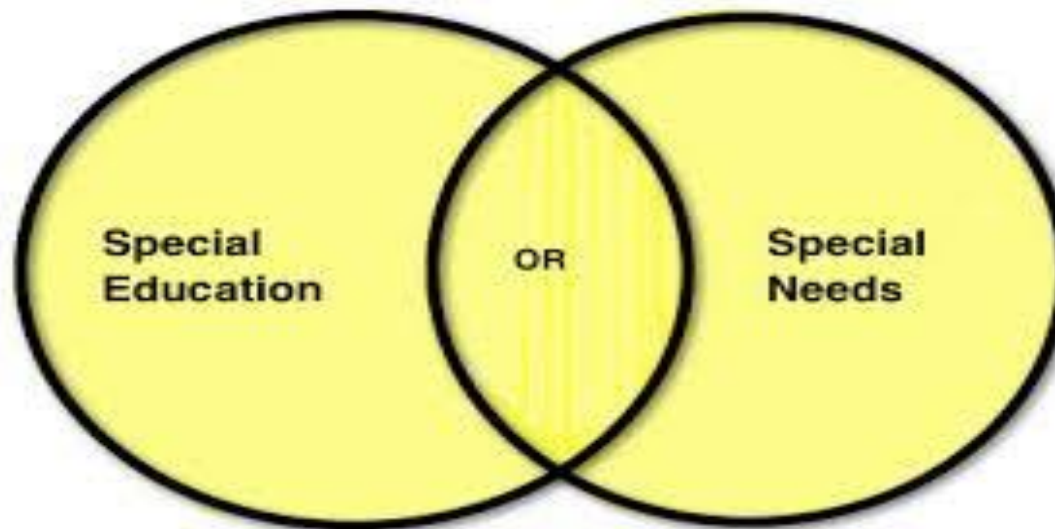
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OR - broadens (either/or) – OR gives you more...



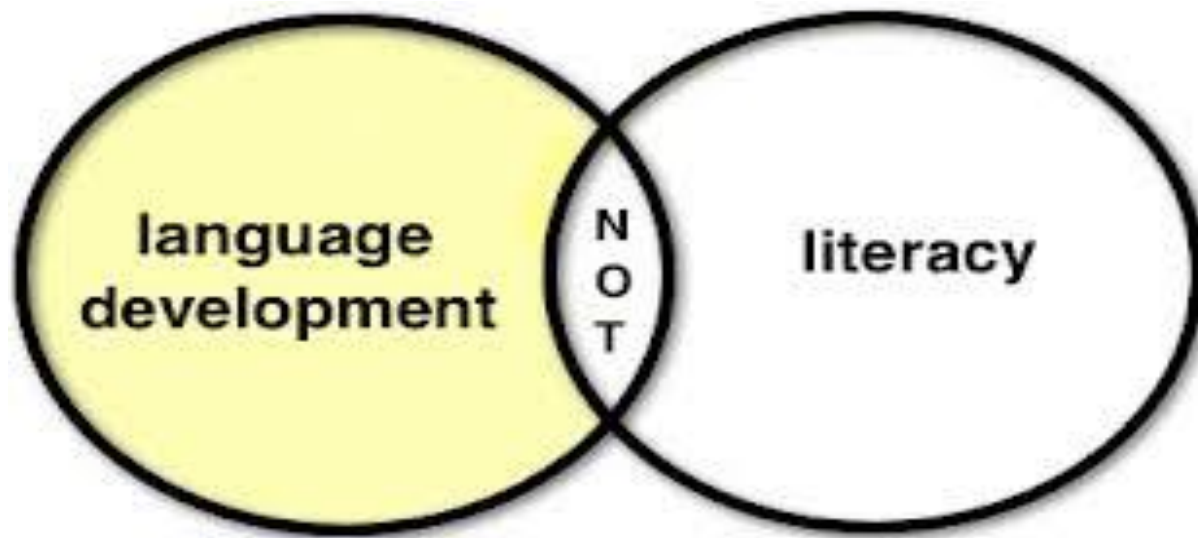
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NOT - narrows (excludes)



TIPS TO BROADEN A SEARCH



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- Use the operator **OR** to combine synonyms, variant spellings etc.:
 - back pain **OR** back ache
- **Truncate** your search term:
 - therap* = therapy; therapies; therapeutic; therapeutics
- Think of **alternative spellings**:
 - Organisation **OR** organization
 - Defence **OR** defense
 - Theatre **OR** theater
- **Remove** some search terms, or use more general terms

TIPS TO NARROW A SEARCH



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- Use the operator **AND**:
 - back pain **AND** back ache
- **Phrase searching** - usually by putting your phrase in quotation marks:
 - “back pain” **AND** “back ache”
- **Limit** your search by
 - Language
 - Date range
 - Type of publication etc.

What causes some children to be bullies?

Decide on your keywords and search for one concept (not necessarily one word) at a time

Look at synonyms, e.g.:

(cause **OR** causes **OR** reason **OR** reasons)

(child **OR** children **OR** kid **OR** kids)

(bully **OR** bullies **OR** persecutor **OR** persecutors)

Combine each search strand with **AND**

Tweak search as necessary

IDENTIFYING THE DATA – OTHER RESOURCES



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- **Institutional repositories**
- **Wikipedia**
- **Google**
- **Other libraries**
- **Other scholars working in the area**



- **Forms a permanent record of all digital output from an institution**
- **Enables a university to compile a complete record of its intellectual effort**
- **Fulfils a university's mission to engender, encourage and disseminate scholarly work**
- **Marketing tool for a university**

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**Useful for some
disciplines as a starting
point but double check
any references you find**

GOOGLE AND GOOGLE SCHOLAR



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- Both are good to get you started
- Google Scholar is useful for finding a particular article you already know about, or others that cite it

BUT CONSIDER:

- No-one outside Google really knows how Google assigns relevancy
- It's very likely articles you want but don't know about are listed in Google Scholar but finding them is another matter
- Google Scholar is essentially a search engine not a bibliographical tool



Inter-Library Loans

ALCID Card, Music PAL, Letters of Introduction



Subject Librarian

Duty Librarian

Library website

Library HITS (and other Library training events)

EndNote

SUMMARY OF KEY POINTS



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- **Definition of a literature review**
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Thank You!

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