Literature Review- Environmental Health
PUB262 - 2016

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Learning Outcomes

• Understand the principles of conducting a literature review
• Identify useful sources for finding resources for a literature review
  • Catalogue  Databases  Internet
• Understand search strategies
• Learn how to identify peer reviewed sources
• Understand evaluation of your results
What is a literature review?

- A critical **evaluative report** of information found in the literature of a topic
  - “In reviews of the literature you have a chance to debate the assumptions and adequacy of the viewpoints you have read....
- Description is usually accompanied by analysis and comment.
- Narrated, paraphrased ‘evidence’ is really a claim waiting to be supported by genuinely cited evidence.
- Alongside ‘coherence’ go ‘comprehensiveness’ and ‘justification’.
- Checking for justification means asking yourself ‘Why?’ and ‘Where’s the evidence?’

Why do a literature review? Its purpose is to...

• Define and clarify the issue

• Inform the reader of the current state of research

• *Overview* current theories and trends

• Identify *relationships* and *gaps* in the literature

• Suggest *future* research directions
Sample review


Have a careful look at how it is structured and how the authors make their arguments using the literature they cite.
Suggested Strategies

• Find out as much as you can from relevant reliable websites- (governments and agencies)
• Find scholarly encyclopedia articles for an overview (see the Library Guide for suggested titles)
• Environmental health research uses diverse information sources - Keep a research log to keep track of what you plan to do and what you have done
• Use suitable databases and websites in research
• Evaluate likely articles and reports using their abstracts (Executive summaries of are useful when reports are long)
Read an overview article in a scholarly encyclopedia – see Library Guide
Clarify the topic

Read instructions carefully
• Understand the topic!

Identify the topic and then all the subtopics you need to cover
• Find literature on all relevant aspects (be balanced)

Identify types of resources
• Books (including edited collections)
• Reports (both government and other)
• Peer reviewed journal articles
Information Sources

Internet
- Reports – (next slides), statistics (ABS), laws, regulations

Databases for journal articles
- Use Library Guide to select the best databases

Library catalogue
- Books (including ebooks & videos)
Official Sources of reports & stats


Federal Parliamentary Library Info Links

Other government Departments in areas relating to topic
Remoteness Classifications

Local government

Non Government
Public Health Association of Australia [http://www.phaa.net.au](http://www.phaa.net.au)
- Environmental Health Australia (see the Knowledge Centre) [http://www.eh.org.au/resources/knowledge-centre](http://www.eh.org.au/resources/knowledge-centre)

WHO Chemical Safety site
- [http://www.who.int/topics/chemical_safety/en/](http://www.who.int/topics/chemical_safety/en/)

Use Google to find other organizations websites
Choosing Terms-What is this really about?

Understand your topic - develop Key terms and
Synonyms - alternative terms
- Broader subjects
- Narrower sub topics
- Related topics
- Alternative spellings
- Include terms such as program, evaluation..etc.
- Do background reading to identify terms
You probably have a topic that is Australian in emphasis, search for articles in the Australian database:
Informit (Health databases) (contains lots of full-text articles)

Supplementary searches can be done in international databases which also have some Australian coverage:
• Scopus (contains all Pubmed)
• Global Health
Search strategy

KNOW      REMEMBER      and USE

AND  : narrows with different concepts

OR    : add synonyms or similar concepts

NOT   : exclude words or phrases
Advanced Search Techniques (continued)

• Truncation (works in *most* databases)
  ➢ Stem finds lots of variants
  e.g. *Aborig* finds *aboriginals, aboriginal, aboriginality*...

• Wildcards
  ➢ Useful for word variant searching
  e.g. *Wom?n* finds *woman* and *women*
    e.g. *gyn?ecolog* finds *gynecology, gynaecology, gynecological* ....etc

Note: Some databases like CINAHL & Proquest will do these operations automatically
Sample search in Informit database

Use keywords to build a search strategy

Keywords/phrases from my topic might be:
• *sewage or effluent*
• *pathogen* or *microb*

This could give a search strategy like this:
• *(sewage or effluent) AND (pathogen* or microb*)

Many other strategies are possible!
Be systematic and organized

• Group articles on similar topics together to build a picture of different aspects of the topic
• Critically evaluate the quality of each document
• Identify aspects of topic you may be able to write your literature review on
• Revise search terms and topic if necessary
• Do several searches if needed
• Use good articles to find related articles (Web of Science, Scopus & Pubmed are good here)
Examining the articles - matrix

Look for dominant themes or ideas in each article

<table>
<thead>
<tr>
<th>Research Question: How does vicarious trauma affect emergency care workers in disaster zones?</th>
<th>Corollary Question: How can negative effects be prevented, reduced, and treated?</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Type of Study</th>
<th>Baird 2006</th>
<th>Bell 2003</th>
<th>Campbell 2007</th>
<th>Devilly 2006</th>
<th>Horman 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
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<tr>
<td>Situation</td>
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<tr>
<td>Definition of vicarious trauma</td>
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<td>Idea 2: Anxiety Effect</td>
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<td>Idea 3: Fatigue Effect</td>
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<td>Idea 4: Physical Effect</td>
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<td>Idea 5: Another Effect?</td>
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<td>Idea 7: Prevent Effect</td>
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<td>Idea 6: Reduce Effect</td>
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<td>Idea 9: Treat Effect</td>
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</table>
Google Scholar is also OK

Either link should take you to full-text
Evaluation 1

- Relevance
- Authority
- Timeliness – *is this information up-to-date enough?*
- Subject coverage
- Format – type of research design, methodology, results and conclusions
- Bias

See also the “Evaluate” tab in the Library Guide here:

Evaluation 2 – How do I know if a journal is “peer-reviewed”?

1. Use a database with a “scholarly” or “peer reviewed” filter (all Ebsco and Proquest databases)
2. Use a “scholarly only” database – Web of Science or Scopus
3. Search journal titles in UlrichsWeb database
Hydraulic fracturing (fracking) is a safe and environmentally responsible process which has been used for more than half a century in areas where the character of a coal seam impedes gas flowing readily into a gas well. In these areas, the coal may need to be stimulated to enhance the flow of gas.

To date, Arrow has only fracked about four per cent of its wells.

The process involves a fluid comprising 99.5 per cent water and sand (0.5 per cent of other additives) being pumped at high pressure down the cased well and into the coal seam. This creates fractures in the coal seam up to 100 metres or so around the well, which are then held open by sand.

Fracking is the most common method used to increase the permeability of the coal seam. These operations are undertaken on the ground surface within the existing drilling footprint. It is only used where there is significant ground pressure and is not conducted at coal seam depths less than about 300 metres.

View our fact sheet:
Can’t get the full text? – Check the Library catalogue or Ejournals list; then...

Can’t find an article in Library resources...?

Try a Google Search

- [www.google.com](http://www.google.com) (not Google Scholar)
- Search for the title of your ARTICLE in parentheses
  e.g. “Meditation for cats”

You will get links to other people’s references, but you may also just get the article.
(Persistence and patience sometimes pays off)
Further reading...

  
  • (Library call no. R118.6 .G37 2007)

  
  • (Library call no. RA440.85 .A949 2010)

THERE ARE QUITE A FEW MORE IN THE LIBRARY...
Getting Help

- See a Librarian at the Information Desk
- Phone 5430 2803
- Email InfoDesk@usc.edu.au
- ‘Ask A Librarian’ online
- Attend HEI di (see next slide)
When? Semester 2, 2016
Every Tuesday of teaching weeks
9.30am – 11.30am
Where?
E1 (Nursing labs area)

What?
Help with assignment writing
Writing style
Assignment structure
Finding journal articles
Referencing
Search strategy