Conducting a Literature Review

Research ReachOut @ the Library S2 2019
Purpose

• Enable Murdoch University researchers to conduct a literature review that critically analyses the published texts, or literature, on a topic

• Understand that a literature review should describe, summarise, evaluate, classify and compare this literature
Overview

• Purpose of literature reviews
• 4 steps:
  1. Formulating the topic
  2. Searching the literature
  3. Evaluating the literature
  4. Analysing and interpreting the literature
• Writing the review
• Tools and Help
3 Scenarios

- Publication
- Assessment
- Assessment and later publication
Tools: Literature reviews guide

What is a Literature Review?

A literature review is a critical analysis of published texts, or literature, on a particular topic. The review should describe, summarize, evaluate, classify and compare this literature. A literature review gives an overview of:

Why is a literature review important?

A literature review:
- Identifies areas of prior research to prevent duplication of effort
- Clarifies important definitions and terminology
- Examines each text's contribution to knowledge of the topic
- Describes the relationship of each text to other texts
- Interprets previous research and resolves conflicts amongst previous studies
- Identifies knowledge gaps and identifies areas for further research
- Places your research in the context of the existing literature
- Creates a theoretical framework for your research
- Focuses your knowledge of the topic and aids the design of your research

What does a literature review demonstrate?

Your literature review should:
- Show that you understand the topic and why it is important
- Demonstrate your ability to access relevant and current literature in the field
- Demonstrate your ability to objectively evaluate research and highlight trends in the area

Research Support

Researchers at Murdoch University are supported by the Library and the Research and Innovation Directorate. Please contact your Subject Librarian to make an appointment for advice on conducting a literature review, formulating research strategies, and information about resources and tools specific to your area of research.

Research Week 51, 2019

- Conducting a Literature Review Slides from Research Week, Semester 1, 2019

libguides.murdoch.edu.au/LitReview
What is the purpose?

Provides an overview of the current state of the literature and critically analyses the relevant publications on your research topic.

Asks questions:

• What do we know?

• What are the gaps in our knowledge?

• What are the recommendations for future research?

• What, specifically, is the necessity of your research?
What should it do?

• Identify areas of prior research to prevent duplication of effort
• Clarify important definitions and terminology
• Interpret previous research:
  1. Examine each text’s contribution to knowledge of the topic
  2. Describe the relationship of each text to the others
  3. Resolve conflict amongst previous studies
• Influence future research or reviewer’s own research project
How will it influence my research?

- Identify any knowledge gaps and point the way forward for further research
- Place your research in the context of the existing literature and create a theoretical framework for your research
- Focus your knowledge of the topic and aid the design of your research project
What should it demonstrate?

As a general rule, your literature review should:

• Show that you understand the topic and why it is important

• Demonstrate your ability to access relevant and current literature in the field

• Demonstrate your ability to objectively evaluate research and highlight trends in the area

• Provide an overview of the topic with clear and justified links to your conclusion
What are the steps?

1. Topic formulation – determine which topic or field is being examined and what are the issues

2. Literature search - find relevant materials

3. Evaluation - determine which texts make a significant contribution to the understanding of the topic

4. Analysis and interpretation - synthesise the literature around concepts and ideas and discuss the findings and conclusions of the relevant literature
Topic formulation

• For your topic to develop, there must be a context

• When placing your topic in context, it is often useful to think about the following:

  * What is the scope of your research topic?
  * What are the relevant/related disciplines?
  * Who is the intended audience?
  * What is the purpose of the research?
  * What is the time period?
  * What is the geographical coverage?
To search the literature, you will need to:

• Describe your topic in broad and narrow concepts

• Determine key words and phrases

• Consider synonyms and alternative terms

• Consider scientific and common terms

• Consider variant spellings

• Decide if you should use controlled vocabulary, as well as natural language
'Literature' can include a range of sources:

- Journal articles*
- Books and book chapters
- Statistical or factual databases
- Conference proceedings
- Theses
- Empirical or observational studies
- Reports from government agencies and other research organisations
- Archival material
Efficient literature searching

• Understand, analyse, define and describe the topic
• Identify concepts/keywords and their synonyms
• Determine the relationships between concepts (Boolean – AND, OR, NOT)
• Combine keywords and synonyms to create a search strategy
• Use appropriate resources
• Review and evaluate
Databases

- Databases are the major resource for finding journal articles and have important functionality.
- If you learn how to use databases effectively, your research will be much more productive and of much higher quality.
- Databases may be multidisciplinary or subject specific.
- For a comprehensive literature search, you will need to use more than one database.
Welcome to the University Library

Libraries search

Search for books, articles, videos, exam papers and more

Databases
Catalogue | Research Repository | eJournals | Exam papers | Advanced search

murdoch.edu.au/library
Search by database title or by subject to see the key databases in your area of research.
You will see details about the content and conditions of use.
Alerting services

- Many databases including Scopus, Web of Science, Medline, ASFA, PsycINFO, ProQuest and others allow you to save searches and create alerts.

- You may be required to create a personal login, this is free and easy - always use your Murdoch email address for this purpose.

- You will be emailed when new references relevant to your search are published and added to the database.

- Alerts can be individually scheduled.
Google Scholar

- Google Scholar is not a substitute for databases, but can be useful.

- Limited functionality including search options, filters and sorting when compared to the databases.

- Only Boolean operator is \( \text{AND} = + \).

- High results and citation counts but includes duplications, false positives and mis-attributions.
Resource sharing

For items not available at Murdoch University Library:

• **BONUS+** – allows you to request books from other university libraries in Australia and New Zealand

• **ArticleReach** – allows you to request journal articles from university libraries around the world

• **Document Delivery** – allows you to request material from other libraries via Libraries Australia, if it is not available through BONUS+ or ArticleReach (available only to Murdoch staff and graduate research students)

• **In person** – borrow books from other university libraries in Western Australia

These services are free for Murdoch University researchers
Managing your results

• Store the relevant articles you have found in a manner and format that is easily accessed at a later date

• Be sure to record all of the necessary bibliographic details you will need to correctly cite these articles

• There are a number of referencing software packages now available – EndNote

• These programs can be used to produce in text citations and reference lists in a specified style
EndNote

- University has license for all Murdoch students and staff
- Available for free
- Powerful bibliographic tool - includes importing of records and pdf handling

libguides.murdoch.edu.au/Endnote
Evaluating the Literature

How important are the articles you have found?

Relevance
* Is the article relevant to your topic?
* Is the research methodology comprehensively described?

Authority
* Is the author from a reputable institution?
* Have you seen the author cited in other sources?

Currency
* Is the source up-to-date?
* Does it consider the latest research on your topic?

Reliability
* Is the source peer-reviewed?
* How reputable is the source?

Accuracy
* Does the data support the conclusions drawn?
* Is the article properly referenced?

Objectivity
* What is the purpose of the article and its intended audience?
* Can you detect any bias in the content?
Some other criteria

• Provenance - Are the author's arguments supported by evidence (primary material, case studies, narratives, statistics, recent findings)?

• Persuasiveness - Which of the author's arguments are most/least convincing?

• Value - Does the work ultimately contribute in any significant way to an understanding of the subject?
Critical reading

- Facts and interpretation
- Not only what a text says but also how the text portrays the subject matter

Non-critical
1. Recognises what a text says
2. Restates the key points

Critical
1. Recognises what a text says
2. Restates the key points
3. Reflects on what the text does
4. Infers what the text means

Goals of critical reading:
- To recognise an author’s purpose
- To understand tone and persuasion
- To recognise bias
Critical reading

A critical reader:

• Questions what they read
• Does not believe everything they read
• Rereads if necessary
• Understands the influence of style
• Analyses arguments
• Discounts arguments that are unsupported or based on faulty reasoning
Activities:

1. What are the most important 5 questions that you would ask yourselves when critically evaluating a text for your review?

2. Apply our 5 questions
Analysis and inference

**Analysis:** what to look for

How to recognise the aspects of a publication that control the meaning

**Inference:** how to think about what you find

The interpretation of data from within
Analysis

- **Abstract:** this is what the author wants the reader to take away from their article - what is the starting point?

- **Introduction:** provides background and a starting point - how does it guide the reader?

- **Materials and methods:** often overlooked but very important - is the methodology understandable, reproducible, direct and robust?
**Direct:** tells us what we want to know, does not require deduction

**Robust:** seeks to eliminate misinterpretation by approaching a problem from multiple angles
• **Results:** summary and analysis of the data but the statistical reporting is just as important as the words
  - what do the tables, figures and legends actually report?

What do you think the data means?

* Decide **before** reading the discussion

• **Discussion:** author draws conclusions – how does this correlate with your conclusions?
Inference

- Were the objectives achieved?
- Hypotheses tested?
- How do these results relate to other studies you have found?
- Do the authors openly discuss any limitations of their study?
- What else needs be studied in the future?
Interpretation

- Read critically

- Note 2-4 bullet points for each study that summarises the main points and conclusions

- Use matrix to analyse findings, relevance and importance of each text

- Draw attention to studies that are important, influential or that bring a new understanding or method of studying your area of research
## Literature Review Matrix

<table>
<thead>
<tr>
<th>Source</th>
<th>Scope</th>
<th>Methodology</th>
<th>Key Findings</th>
<th>Limitations</th>
<th>Contentious Issues</th>
<th>Contribution to Literature Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article 1:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Article 2:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Article 3:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Article 4:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Using the LR matrix

Activity:

Using the supplied article, determine the following:

• Scope of the article

• Methodology employed

• Key findings

• Any limitations
Writing the review

• Remember that a literature review is a piece of discursive writing – “a conversation, not a list”

• Synthesise the literature around concepts and ideas, rather than just describing each author's findings

• The topic sentence should contain the concept, then provide analysis of the studies that support it

• Organise your review in a way that helps readers make sense of the studies – structure your review…
Common approaches:

1. Topical - grouping studies by subject or theme
2. Conceptual - grouping studies by concept
3. Methodological - grouping studies by method
4. Chronological - ordering studies from oldest to most recent or, more rarely, in reverse
5. Combination – a mixture of approaches
Review should include

- An overview of the topic, along with the objectives of the literature review
- The division of texts under review into categories
- An explanation of how each text is similar to and how it varies from the others
- Conclusions as to which texts are most considered and convincing in their argument, and make the greatest contribution to the understanding and development of the topic
Assist your reader

• Use headings

• Correctly cite the publications that you review

• Incorporate brief summaries of the relevant studies throughout the review

• Use language that explicitly describes the scope of research within the topic, the studies under review, and the relationship to your own research
Effectiveness of the review

- The reader should have a clear understanding of the current state of knowledge on your topic.
- You must show what has been overlooked, understudied, or misjudged by previous studies in order to create space for new research.
- The primary purpose of the literature review is to demonstrate why your research is necessary.
What is a Literature Review?

A literature review is a critical analysis of published texts or literature on a particular topic. The review should describe, summarise, evaluate, classify, and compare this literature. A literature review gives an overview of:

- What has been said
- Key writers
- Prevailing theories and hypotheses
- Questions being asked
- Appropriate and useful methods and methodologies

Research Support

Researchers at Murdoch University are supported by the Library and the Research and Innovation Directorate.

Please contact your Subject Librarian to make an appointment for advice on conducting a literature review, formulating research strategies, and information about resources and tools specific to your area of research.

Research Week 51, 2019

- Conducting a Literature Review
  Slides from Research Week, Semester 1, 2019

Why is a literature review important?

A literature review:
- Identifies areas of prior research to prevent duplication of effort.
- Clarifies important definitions and terminology.
- Examines each text's contribution to knowledge of the topic.
- Describes the relationship of each text to other texts.
- Interprets previous research and resolves conflicts amongst previous studies.
- Identifies knowledge gaps and identifies areas for further research.
- Places your research in the context of the existing literature.
- Creates a theoretical framework for your research.
- Focuses your knowledge of the topic and aids the design of your research.

What does a literature review demonstrate?

Your literature review should:
- Show that you understand the topic and why it is important.
- Demonstrate your ability to access relevant and current literature in the field.
- Demonstrate your ability to objectively evaluate research and highlight trends in the area.
Tools: Referencing guides

Library

Referencing

Referencing is a consistent method of acknowledging another person’s ideas which you have used in your own writing. You must reference all sources that you use in your work, including words and ideas, facts, images, videos, audio, websites, statistics, diagrams and data.

Why reference?

- Assists you to avoid plagiarism
- Reference ensures that you have acknowledged your sources and that you have done your best to avoid plagiarism.
- Demonstrates the depth and breadth of your research and reading
- Enables other researchers to locate your sources
- Supports and strengthens your argument

The reader can determine whether the sources you have used support your argument.

goto.murdoch.edu.au/Referencing
Help

If you hit this:

Remember there’s always help!

Contact your Librarian or the Ask our Librarians service
Ask our Librarians

Need help finding resources for your assignments or building your research strategies?

Our Subject Librarians are skilled information professionals who can provide study, teaching and research support. We can provide support on:

- finding scholarly information to support research
- library skills training
- managing and organising research sources using EndNote
- referencing sources in assignments
- scholarly publishing, publication impact, open access and copyright.

Ask us a question

For quick questions via email, use the enquiry form below. For Murdoch students and staff only.

goto.murdoch.edu.au/askalibrarian
Help: Consultations

• Our librarians provide further research support and skills training for academic staff, researchers and research students

• You can arrange a small group or individual consultation
Any questions?