Literature Review Clinic

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Preface

My professor says I have to write a literature review...

...where do I START!?!?!?!
Preface

Being able to review relevant literature in your field is a key academic skill you must master in graduate school.

In this clinic, we will discuss the objectives and guidelines for writing a Literature Review.
Roadmap

**Definition**

- What makes a good LR
- What makes a poor LR

**General guidelines**

- LR difficulties
- LR main objective

**Common Mistakes**

- LR Checklist
- Questions
My professor says I have to write a literature review, what do I do?

- Your goal as a researcher is to determine the current state of knowledge about a topic.

- Ask yourself: “What is known and what is not known about this topic?”

- You must examine several different sources to determine where the knowledge overlaps and where it falls short.
So, I just read the articles and summarize each one separately?

- **No!** A literature review is not a summary.
So, what is a literature review?

- A literature review is a synthesis of different sources published by accredited scientists on a specific topic.

- It is usually organized into subtopics.

- It demonstrates your understanding of the current state of knowledge in your discipline.
What makes a *good literature review*?

A *good literature review* presents the facts and should also go behind the facts to:

- Show the issues that have been dealt with in the past, those that are currently being addressed and those that need to be addressed in the future.

- Show correlations, contradictions, ambiguities, knowledge gaps or even conflicts between competing research groups.

- Give an analysis and commentary that makes it clear you understand the issue.

- Show that you are imposing your view on the issue.
What makes a **good literature review**?

A **poor literature review** is just an account of who did what and when it was done, without comment on relevance and quality.
What is the main objective of a *literature review*?

To show that you have a **thorough understanding** of your research topic background by:

- Providing a coherent account of the most relevant work
- Giving a historical description of the topic’s development
- Providing an account of available techniques and/or materials being used
- Showing weaknesses of other works and/or techniques
- **Showing how your work will make an original contribution**
What is the structure of a literature review?

A literature review should be structured like any other academic work: it should have an **introduction**, a **main body**, and a **conclusion**.

- **Introduction**
  - Defines your topic and provides appropriate context.
  - Establishes your reasons or point of view.
  - Explains the organization/sequence.
  - States the scope of the review (what is included and what is not).
What is the structure of a *literature review*?

- **Main Body**
  - Organizes the literature according to common themes.
  - Provides insight into the relation between your chosen topic and the wider subject area.
  - Moves from a general, wider view of the literature being reviewed to the specific focus of your research.
What is the structure of a *literature review*?

**Conclusion**

- Summarizes the important aspects of the existing body of literature.
- Evaluates the current state of the literature reviewed.
- Identifies significant flaws or gaps in existing knowledge.
- Outlines areas for future study.
- Links your research to existing knowledge.
What are the common difficulties to writing a *literature review*?

- Feeling overwhelmed by the quantity of literature
- Coping with a lack of literature
- Getting started
- Deciding how broad or narrow to make the review
- Knowing which documents to discard and which to keep (handout!!)
- Having the discipline to constantly re-read documents to gain fresh understanding
What are the general guidelines for preparing a *literature review*?

**Step 1:** Consult a librarian about searching techniques

- Know the relevant searching strategies and keywords for your topic.
- Attend seminar on searching techniques

**Step 2:** Use bibliographic data management software

- Know which software is available: EndNote, RefWorks, Zotero, Mendeley, Citethisforme.com, etc.
- Learn how to use it to effectively search, record and create a customized “List of References”
What are the general guidelines for preparing a *literature review*?

**Step 3:** Search for tertiary (textbooks), secondary (review articles) and primary sources (journal or conference papers, chapters, theses)

- Textbooks are useful in giving an overview of a field, though not the depth of detail needed. Some can be recognized as authorities and can be acceptable as references.
Step 3: Search for tertiary (textbooks), secondary (review articles) and primary sources (journal or conference papers, chapters, theses)

- Review articles are summaries of information gathered from primary sources and should be as current as possible, written by accredited top scientists in your particular field.
Step 3: Search for tertiary (textbooks), secondary (review articles) and primary sources (journal or conference papers, chapters, theses)

- Primary sources are key papers. They are the most frequently cited papers from the most frequently cited authors. They should be the most recently dated.

What are the general guidelines for preparing a literature review?

REFERENCES


What are the general guidelines for preparing a *literature review*?

**Step 4:** Select the information you need from the primary sources (KEY papers)

- Why is it an important topic, what is known about it, and how does it fit into a broader view of the research area?
- What is ambiguous, in dispute, unknown and why?
- Why do these gaps in knowledge need to be filled?
- Which gaps to you propose to fill in your research? Why? How do you propose to do it?

**Step 5:** Choose preliminary topic headings

- These can be based on location (country, region), perspective (negative, positive, neutral), discipline, methodology (techniques), current trends, or even chronological time.
What are the general guidelines for preparing a literature review?

**Step 6:** Sort information into the topic headings

- Create a folder for each topic and file the material you have found into each one including: papers, abstracts or even your own comments.

**Step 7:** Select less-known sources (FRINGE papers)

- Papers by less prominent authors.

**Step 8:** Analyze and file the information for the FRINGE papers under the headings as you did for the KEY papers

- Revise both sets of papers and consolidate them as necessary.
What are the general guidelines for preparing a literature review?

**Step 9:** Re-read your original review papers to reassess your understanding of the topic

- Think of it as an iterative process. Your perspectives might change while your understanding of the topic increases.

**Step 10:** Write up the literature review as a final stage. Do not start writing your LR until all the available information has been assembled. A review written too early will likely need a lot of rewriting.

- Connect all the material for each topic together
  - Look for possible subheadings
  - Look for similarities, contrasts, inconsistencies or gaps
  - Write the text to link these ideas together
What possible **subtopics** would you use to sort these references out?

1. Snyder and Bonzi (1989)
Patterns of self-citation in six disciplines were examined. 9% of all citations were self-citations: 15% in the physical sciences, 6% in the social sciences, and 3% in the humanities.

2. Bonzi and Snyder (1991)
A study of 51 authors in the natural sciences revealed only a few differences in motivation between citing oneself and citing others.

A study of the citing practices of 56 highly cited authors in the field of Education was conducted. Only 2 of the 56 did not cite themselves over a 12-year period. At the other extreme, 154 out of 280 citations (55%) received by one author were the outcome of self-citations.

4. White (2001)
The most important citer motivation is to project one’s own writing (and reading) by linking earlier work to later work. In this sense, a certain amount of self-citation is both natural and inevitable.

Self-citations may arise from three kinds of motivation: (1) a natural result of the cumulative nature of an individual’s research; (2) a need for personal gratification; and (3) its value as a rhetorical device to increase an author’s visibility and reputation.

This study of 400 Economics articles showed that an author’s self-citations did not have a statistically significant effect on that article’s total number of citations.

Seventeen percent of references in Clinical Science were self-citations, a figure that rose slightly to 20% in Basic Science.

A macro study of more than a half million citations to articles by Norwegian scientists in the 1981-2000 period was undertaken. The average citation rate was 11%, although there were wide individual variations. They then showed that the more authors cite themselves the more likely they are to be cited by others.
### What possible **subtopics** would you use to sort these references out?

<table>
<thead>
<tr>
<th>Possible subtopics</th>
<th>References (comments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of self-citations (chronological order)</td>
<td>References 1-8 ???</td>
</tr>
<tr>
<td>self-cite percentages</td>
<td>References 1, 7 and part of 8</td>
</tr>
<tr>
<td>motivations for self-citing</td>
<td>References 4 and 5</td>
</tr>
<tr>
<td>effects of self-citation</td>
<td>References 2, 6 and 8</td>
</tr>
<tr>
<td>sample size of study</td>
<td>References 8, 6, 3 and 2</td>
</tr>
<tr>
<td>field of study</td>
<td>References 1, 2, 3, 6, 7</td>
</tr>
</tbody>
</table>

Putting it all together

Beyond Content: Advice on citation patterns, paraphrasing and using signal (transitions) words
What **citation patterns** should I use?

- **1. Within-sentence quotations**

  According to Kim (1999: 10), "The World Trade Organization still has many obstacles to overcome, particularly with regard to decision-making processes."

- **2. Block and indented quotations** (for quotations of more than 40 words)

  As Kim (1999: 55) has indicated:

  Although the WTO is a major improvement over the old GATT system, it is still a young organization and leaves much to be desired. Mostly, the organization lacks both the competence and the resources to deal with new trade areas such as investment and information; its formal and binding structure as well as rigid decision-making process hinders and even sometimes blocks any harmonization effort in new trade-related areas.

What *citation patterns* should I use?

**3. Paraphrase / Summary**

According to Kim (1999: 10), the World Trade Organization needs to improve the processes by which decisions are made.

**4. Generalization (combining several sources)**

The ways in which decisions are made within the World Trade Organization are typically inefficient (Mitchell 1997; Kim 1998; Kim 1999; Kirgis 1999).

What *citation patterns* should I use?

- You need to consider whether to directly quote from your source or whether to paraphrase or summarize.
- It might depend on your specific field and style guide used.

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Quotation</th>
<th>Block Quotation</th>
<th>Summary/Paraphrase</th>
<th>Generalization</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>0</td>
<td>0</td>
<td>72</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td>0</td>
<td>0</td>
<td>68</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>0</td>
<td>0</td>
<td>66</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>0</td>
<td>0</td>
<td>67</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td>0</td>
<td>0</td>
<td>61</td>
<td>37</td>
<td>2*</td>
</tr>
<tr>
<td>Marketing</td>
<td>3</td>
<td>2</td>
<td>68</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>20</td>
<td>1</td>
<td>55</td>
<td>20</td>
<td>3**</td>
</tr>
<tr>
<td>Applied Linguistics</td>
<td>8</td>
<td>2</td>
<td>67</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Sociology</td>
<td>8</td>
<td>5</td>
<td>69</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Philosophy</td>
<td>2</td>
<td>1</td>
<td>89</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

* Referral citations that instruct the reader to see another source
** Hybrid citations (short quoted phrases and original words from author)
What *citation patterns* should I use?

- **Integral citations** (author prominent):
  - Using the authors’ names as a grammatical part of the citing sentence
  - Focuses more on the researcher than on the research itself.
  - Mostly used in the Arts.
  - *e.g.* According to James...; Kim found that...; Mitchell and Kim examined...

- **Non-integral citations** (research prominent):
  - Citing takes place outside the sentence (either in parenthesis or represented by a number or footnote).
  - Mostly used in the sciences and engineering.
  - *e.g.* Research has shown that the drug has potentially lethal side effects (Kim, 2010); Numerous studies have reported an increase in fatalities [2], and [3].
Which **signal (transition) words** to use?

- Signaling (transitions) words and phrases are useful to:
  - connect ideas,
  - show a logical relationship between ideas,
  - guide the reader in the direction that the writer wants them to go

<table>
<thead>
<tr>
<th>Most Common</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>However</td>
<td>First, second, etc...</td>
</tr>
<tr>
<td>Thus</td>
<td>Also</td>
</tr>
<tr>
<td>For example</td>
<td>In addition</td>
</tr>
<tr>
<td>Finally</td>
<td>Therefore</td>
</tr>
<tr>
<td>On the other hand</td>
<td>Then</td>
</tr>
<tr>
<td>Nevertheless</td>
<td>For instance</td>
</tr>
<tr>
<td>Furthermore</td>
<td>Moreover</td>
</tr>
<tr>
<td>In particular</td>
<td>But</td>
</tr>
<tr>
<td>In fact</td>
<td>Yet</td>
</tr>
</tbody>
</table>

Which **signal (transition) words** to use?

**Signal Words of Time and Process**

<table>
<thead>
<tr>
<th>First...</th>
<th>To start,...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second...</td>
<td>To begin with,...</td>
</tr>
<tr>
<td>Then...</td>
<td>The first step is...</td>
</tr>
<tr>
<td>The next...</td>
<td>Turning now...</td>
</tr>
<tr>
<td>About the same time...</td>
<td>Once X is done,...</td>
</tr>
<tr>
<td>Another...</td>
<td>Having looked at X,...</td>
</tr>
<tr>
<td>Prior to...</td>
<td>Afterwards,...</td>
</tr>
<tr>
<td>Before...</td>
<td>When...</td>
</tr>
<tr>
<td>Former/latter...</td>
<td>Moving on...</td>
</tr>
<tr>
<td>Until...</td>
<td>Finally,...</td>
</tr>
<tr>
<td>Subsequently...</td>
<td>Next,...</td>
</tr>
<tr>
<td>Finally...</td>
<td>Let's turn to...</td>
</tr>
<tr>
<td>By X,...</td>
<td></td>
</tr>
</tbody>
</table>

Which **signal (transition) words** to use?

### Signal Words of Comparison (Compare/Contrast Reminder Phrases)

<table>
<thead>
<tr>
<th>Similarities</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too</td>
<td>But</td>
</tr>
<tr>
<td>Also</td>
<td>In contrast</td>
</tr>
<tr>
<td>Similar to</td>
<td>Whereas</td>
</tr>
<tr>
<td>Both</td>
<td>On the other hand</td>
</tr>
<tr>
<td>Likewise</td>
<td>Unlike</td>
</tr>
<tr>
<td>In the same way</td>
<td>However</td>
</tr>
<tr>
<td>Similarly</td>
<td>Different from</td>
</tr>
<tr>
<td>The same</td>
<td>Yet</td>
</tr>
<tr>
<td>As well as</td>
<td>While</td>
</tr>
</tbody>
</table>

### Signal Words of Cause and Effect

<table>
<thead>
<tr>
<th>Linking two clauses</th>
<th>When, because, since</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linking noun phrase + clause</td>
<td>As a result of, because of</td>
</tr>
<tr>
<td>Linking two noun phrases</td>
<td>Cause(s), lead(s) to, contribute(s) to, result(s) in, produce(s), is/are more likely to</td>
</tr>
<tr>
<td>Transitions</td>
<td>As a result,...</td>
</tr>
<tr>
<td>Other expressions</td>
<td>Therefore/consequently</td>
</tr>
</tbody>
</table>

### Summary Reminder Phrases

<table>
<thead>
<tr>
<th>The author goes on to say that...</th>
<th>The article further states that...</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Author) also states/maintains/argues that...</td>
<td>(Author) also believes that...</td>
</tr>
<tr>
<td>(Author) concludes that...</td>
<td>In the second half of the paper, (Author) presents...</td>
</tr>
<tr>
<td>(Author) goes on to say...</td>
<td>(Author) et al. also believe that...</td>
</tr>
<tr>
<td>The author further argues that...</td>
<td></td>
</tr>
</tbody>
</table>
What type of citation is used? Can you make it better?

- **The Origins of the First Scientific Articles**

Banks (2011) describes the founding of the first scientific journals in London and Paris in the 1660s. Obviously, the first scientific articles had no direct models to build on, and several scholars have discussed possible influences. Ard (1983) and Valle (2000) suggest that the first articles developed from the scholarly letters that scientists were accustomed to sending to each other. Sutherland (1986) showed that early articles were also influenced by the newspaper reports of the time. Paradis (1987) described the influence of the philosophical essay. Shapin (1984) claimed that the scientific books of Robert Boyle were another model. Bazerman (1988, 1997) argued that discussions among the scientists themselves made their own contribution to the emergence of the scientific article. Finally, Gross (1990, 2008) ascribes their origins to inventories of nature and natural products.
HOMEWORK?!?!?!?!

Links to examples of good LRs. Check them out!

- [http://guides.library.vcu.edu/lit-review](http://guides.library.vcu.edu/lit-review)
- [http://libguides.uwf.edu/c.php?g=215199&p=1420828](http://libguides.uwf.edu/c.php?g=215199&p=1420828)
References


Any Questions????
Thank You!
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