

Strategies for Writing Literature Reviews

Writing Support Services Student Success Centre





The University of Calgary, located in the heart of Southern Alberta, both acknowledges and pays tribute to the traditional territories of the peoples of Treaty 7, which includes the **Blackfoot Confederacy** comprised of the **Siksika**, the **Piikani**, and the **Kainai First Nations**, the **Tsuut'ina First Nation**, and the **Stoney Nakoda** including **Chiniki**, **Bearspaw**, and **Goodstoney First Nations**. The City of Calgary is also home to **Métis Nation of Alberta**, **Region III**.

The University of Calgary is situated on land Northwest of where the Bow River meets the Elbow River, a site traditionally known as "Moh'kins'tsis" to the Blackfoot, Wîchîspa to the Stoney Nakoda, and Guts'ists'i to the Tsuut'ina. On this land and in this place we strive to learn together, walk together, and grow together "in a good way.



Moving from Acknowledgement to Action

 Land acknowledgements serve an important function in moving toward reconciliation with Indigenous peoples in Canada, but acknowledgement itself is not enough. How do we move beyond acknowledgement to being active participants in reconciliation?

 Scan the QR code for a list of additional resources and ways that you can support your own growth and contribution to reconciliation.





 Scan the QR code to visit the Grad Success Week website.

There are a lot of really valuable sessions taking place throughout the week. Sign up for more sessions, engage in meaningful learning, and connect with fellow graduate students!





- Learning Outcomes
- Presentation
- Questions



Learning Outcomes

Purpose of today's presentation

As part of your research process as a graduate student, you will be expected to produce literature reviews. A literature review is more than a summary of individual articles. It is, among other things:

- a story about critical <u>consensus</u> and <u>debate</u> in the field
- a story about major <u>developments</u> in the field
- a search for <u>research gaps</u>
- a <u>directed</u> engagement with existing research for the purposes of <u>defining</u>, <u>designing</u> and/or <u>situating</u> your own research

This workshop will elaborate on these elements of literature reviews and show you how to incorporate them into your own writing.



Learning Outcomes

By the end of this session, participants will be able to:

- Identify and address issues that emerge when writing a literature review
- Use rhetorical, organizational, and argumentative strategies to make the overview of the literature clear, consistent, and coherent
- Conceptualize the structure of a literature review
- Engage with specific writing techniques to coordinate any shifts in their analyses of relevant literature



Part I: Presentation

- Overview
 - What Is a Literature Review?
 - Why Write a Literature Review?
 - Types of Literature Reviews
- Reading Literature Critically
- Common Issues of Literature Reviews



What Is a Literature Review?

A literature review:

Is a written academic document that is organized around any of the following:

- A thesis statement, hypothesis, or aim
- A research question, objective, or issue
- A theory, method, or policy



What Is a Literature Review?

A literature review:

- Summarizes and analyzes existing research
- Tells 'the story' of the research
- Takes part in an 'informed conversation'



Why Write a Literature Review?

When do you write a literature review?

- A coursework assignment
- A funding application
- A project proposal
- A candidacy exam
- A thesis/dissertation document
- Etc.



Why Write a Literature Review?

- To situate your work within the body of research in your field or discipline
 - To survey what research has been done to date
 - In terms of Scope (limited scope may reveal an opportunity for contribution) and relevance (what has previous research contributed to the field? What is the importance of the research problem?)
 - To locate gaps in the scholarship
 - To identify unbiased and/or valid studies
 - To articulate the usefulness of these studies to your project
 - To contribute something new to knowledge



- In terms of <u>content</u>, there are <u>three</u> major types of literature reviews:
 - 1) Thematic reviews
 - 2) Chronological reviews
 - 3) Methodological reviews



- 1) Thematic reviews
 - Topics, contents, issues, problems
 - Logical order of ideas
 - Most to least important (or vice versa)



2) Chronological reviews

- Between/from one point in time to another
 - E.g., between 2000 and 2010; from 2010 to present day
- Sources occurring in sequence
 - E.g., "first this, then that, then finally..."
- Key works then most recent works



- 3) Methodological reviews
 - Epistemologies
 - Knowledge frameworks and assumptions
 - Methodologies
 - Disciplinary conventions
 - E.g., quantitative vs. qualitative, etc.
 - Methods
 - Tools to collect, produce, and analyze your data
 - E.g., experiments, simulations, surveys, ethnographies, etc.



- You can use more than one type to organize your research and writing.
 - E.g., a thematic <u>and</u> chronological literature review.

- In some cases, you may also have to write a literature review more than once.
 - E.g., about your topic, theoretical paradigm, chosen methodological approach, etc.



Immerse yourself in the literature

Read for depth and breadth of understanding

Use what you need (and do not use what you do not need)



Search strategically when finding potential sources:

- Recent publications—within the last 5 years (or less)?
- Titles and keywords
- Abstracts and summaries
- Introduction/conclusion paragraphs or chapters
- Section headings
- Topic sentences of body paragraphs
- Presentation of data: graphs, tables, figures, etc.



Search strategically when finding potential sources:

- Key authors and concepts
- Bolded and italicized words
- Bibliographies and references pages
- Journal impact factors
- Professional affiliation
 - With top associations within your field or discipline?
- Reviews



Specific questions you could ask:

- Why is there so little/much material about your topic?
- Why did the author(s) choose this theory and/or method?
- How do these studies connect with your research? Or, how do these studies not connect with your research?



Common Issues with Literature Reviews?

- What are some common issues with literature reviews?
 - 1) They become a "shopping list" of descriptions.
 - They lack a clear, organizational principle.
 - 3) They lack a substantive critical appraisal.
 - 4) They lack transitional logic.



Common Issues with Literature Reviews

Issue #1:

They become a "shopping list" of descriptions.



 Topics should relate to each other and support the main organizational principle—your literature review <u>is not</u> a shopping list of names, dates, and texts.

 Explain to your reader how and why a source is relevant, notable, useful, and important to your research specifically and to the literature generally.



Do not simply write: "Smith says this...; Jones says that...; etc."

Additionally, do not start every paragraph with an author:
 "According to Williams...; Brown likewise states that...; etc."



- Think about connections and transitions:
 - How are Smith and Jones similar? How are they different?
 - Do you agree with one over the other? Why?
 - How do these authors help elucidate your research?
 - Why is it important to talk about these authors at this point in the literature review?
 - How will you shift your attention from Smith and Jones to Williams? And then Brown?



 Manage your material to improve the readability of your text and the flow of ideas.

Think about your literature <u>as if</u> you were telling a story.

— Examples?

People, issues, conflicts, important moments, dramatic shifts, resolutions, narrative structure, past/present tense, etc.



Have clearly identifiable topic sentences.

 A topic sentence appears at the start of every paragraph, typically as the first sentence. Topic sentences themselves can also be <u>arguments</u>, i.e., what you are trying to prove in an individual paragraph.



For every paragraph, topic sentences tell your reader what to expect in terms of any <u>claim</u> you make, any <u>example</u> you introduce, and any <u>analysis</u> you do about the main idea of the topic sentence itself.

Topic sentences also allow you to focus on how your sources fit within your ideas and arguments, rather than how your ideas and arguments can fit within your sources.



Common Issues with Literature Reviews

Issue #2:

They lack a clear, organizational principle.



Examples of organizational principles:

- Locating the gap in research
- Noting common features
- Identifying consensus
- Summarizing consistent results



The majority of studies have overlooked <issue>.

Locating the gap in research

"The portion of the structural health monitoring process that has received the least attention in recent reviews is the development of statistical models to enhance the SHM process. <u>Almost none of the hundreds of studies summarized in [2, 3] make use of any statistical methods</u> to assess if the changes in the selected features used to identify damaged systems are statistically significant."

Sohn, H., Farrar, C. R., Hemez, F., & Czarnecki, J. (2002). A review of structural health monitoring literature. Los Alamos National Laboratory.

https://www.researchgate.net/publication/236499183 A Review of Structural Health Review of Structural Health Monitoring Literature 1996-2001



Noting common features

"Much of the literature emphasizes a number of shared key factors that translate into school culture. These factors, such as values, beliefs, norms and ways of thinking and working that form the patterns of practice, can be relied upon to inform thinking and action (Heckman, 1993; Stolp & Smith, 1994). It is the expectations that fall out of these that form the 'assumptions [which] are tacit, unconsciously taken for granted, rarely considered or talked about, and accepted as true and non-negotiable' (Tagiuri, 1968, p. 185)."

Abawi, L., & Oliver, M. (2013). Shared pedagogical understandings: Schoolwide inclusion practices supporting learner needs. *Improving Schools*, 16(2), 159-174. DOI: 10.1177/1365480213493711



"Looking in detail at papers that have been presented in this area, we find papers that study ontologies or terminologies for specific medical domains [27–29], as well as papers focusing on specific tasks such as information retrieval and patient eligibility assessment for clinical trials [30,31]. Another class of papers addresses representation and inference problems, such as formal representation of part-of relations, ontology mapping, or identification of redundant elements in concept definitions [32,33]."

Identifying consensus in the literature

- "As of 2015, ontological and terminological systems are broadly considered indispensable for many areas of AI in medicine and biomedical informatics, ranging from knowledge based systems to Big Data analytics. Much of the work on ontologies is nowadays labeled under the heading "semantic technology".
 Ontologies and terminologies therefore arguably belong to the core areas of the field."
- Peek, N., Combi, C., Marin, R., & Bellazi, R. (2015). Thirty years of artificial intelligence in medicine (AIME) conferences: A review of research themes. Artificial Intelligence in Medicine, 65(1), 61-73. http://dx.doi.org/10.1016/j.artmed.2015.07.003



Summarizing consistent results

- "This paper will explore this case in detail, utilizing primary clinical data on both parent and child. The relationship between parental psychodynamics and the genesis of the syndrome will be explored."
 - "In those cases reported in the literature, the earliest age a child presented with factitious illness by proxy was 8 weeks (Rogers et al., 1976.) and the oldest, 11 years (Herzberg and Wolff, 1972). In several cases, the children first came to the attention of physicians during infancy or the 2nd year of life, but the diagnosis of factitious cause was not made for several years. Of the 24 reported cases, 12 were boys and 12 girls. The presenting problems included: "diabetes mellitus" and..."
- Palmer, A. J., & Yoshimura, G. J. (1984). Munchausen syndrome by proxy. *Journal of the American Academy of Child Psychiatry*, 23(4), 503-508. https://doi.org/10.1016/S0002-7138(09)60332-0



 However, these organizational principles need to be anchored to a train of thought and a rationale for doing your research.

 Good organization can lead to good argumentation, but good argumentation can also lead to good organization.



- How can you organize your ideas within a literature review?
 - Analysis and Synthesis
 - Summary and Recontextualization



- Analysis (a) and Synthesis (b)
 - "What writing exists about my topic?" (a)
 - "How do these writings relate to my research?" (b)
 - "Why should the reader care?" (a + b)



- Summary (a) and Recontextualization (b)
 - "What is the bigger picture?" (a)
 - "How does my research fit within that bigger picture?" (b)
 - "What do you plan to achieve?" (a + b)



- "Bury's (1982) concept of chronic illness as biographical disruption serves as a starting point in the analysis of the experience of waiting for a liver transplant. Bury characterized the complex ways in which the disruption of personal continuity occasions a fundamental rethinking of a person's biography and self-concept. He theorized that the disruption is on multiple levels, affecting not only metacognitive levels of meaning but relationships and material affairs as well. For his understanding of the experience of illness, Bury drew on Giddens's (1979) notion of a critical situation in which three aspects are attained: (a)...; (b)...; and (c).... Bury viewed medicine as a cultural system that is both a resource in times of distress and "a constraint in their search for the deeper meaning of experience" (p. 179)."
- "Using this notion of medicine as a cultural system, we can begin to interpret the [experience of waiting for a liver transplant]..."
- Brown, J., Sorrell, J.H., McLaren, J., & Creswell, J.W. (2006). Waiting for a liver transplant. *Qualitative Health Research*, 16(1), 119-136. https://journals.sagepub.com/doi/10.1177/1049732305284011



Common Issues with Literature Reviews

Issue #3:

They lack a substantive critical appraisal.



 "Critical" does not mean "negative" per se, but instead means to provide commentary and constructive criticism about the positives and negatives of an author's arguments.



Consider the following:

- "Is the author's problem/issue clearly defined?"
- "Is its significance clearly established?"
- "Could the problem have been approached more effectively from another perspective?"
- "Has the author evaluated the literature relevant to the problem/issue?"
- Procter, D., & Taylor, M. (2018). The literature review: A few tips on conducting it. University of Toronto Health Sciences Writing Centre. https://advice.writing.utoronto.ca/types-of-writing/literature-review/



Consider the following:

- "Does the author include literature taking positions she or he does not agree with?"
- "How accurate and valid are the measurements?"
- "Are the conclusions validly based upon the data and analysis?"
- What are the project's strengths and limitations?
- Procter, D., & Taylor, M. (2018). The literature review: A few tips on conducting it. University of Toronto Health Sciences Writing Centre. https://advice.writing.utoronto.ca/types-of-writing/literature-review/



"Because of their anti-inflammatory activity, corticosteroids (CSs) are an adjuvant therapy for ARDS and cytokine storm. **However**, the broad immunosuppression mediated by CS does raise the possibility that treatment could interfere with the development of a proper immune response against the virus. A meta-analysis of 5,270 patients with MERS-CoV, SARS-CoV-1, or SARS-CoV-2 infection found that CS treatment was associated with higher mortality rate (Yang et al., 2020c). A more recent meta-analysis of only SARS-CoV-2 infection assessed 2,636 patients and found no mortality difference associated with CS treatment, including in a subset of patients with ARDS (Gangopadhyay et al., 2020). Other studies have reported associations with delayed viral clearance and increased complications in SARS and MERS patients (Sanders et al., 2020). In fact, the interim guide-lines updated by the WHO on March 13, 2020 advise against giving systemic corticosteroids for COVID-19 (World Health Organization, 2020a). Yet, new data from COVID-19 are conflicting."

Conflicting results

Vabret, N., Britton, G. J., Gruber, C., Hegde, S., Kim, J., Kuksin, M., ... Laserson, U. (2020). Immunology of COVID-19: Current state of the science. *Immunity*, 52(6), 910-941. https://doi.org/10.1016/j.immuni.2020.05.002



Disagreeing with common approach

 "There are many different studies dealing with mainstreaming or integrating different cross-cutting aspects, including climate change adaptation and disaster risk reduction, into different kinds of sector work. These include (a) guidance notes for integrating adaptation into recovery planning (IRP, n.d.); (b) tools for mainstreaming risk reduction into development planning (e.g. Benson et al., 2007; LaTrobe and Davis, 2005; Mitchell, 2003); (c) benchmarking handbooks (e.g. Ballard et al., 2008; Stephenson, 2008) and other training material (e.g. ADPC, 2006; Care International, 2009; FAO/ILO, 2009; IISD, 2007; Oxfam, 2002; SDC, 2009; Tearfund, 2009, 2011). These studies address different and often quite specific aspects which are crucial when integrating adaptation into urban planning and other sector work, but they generally do not provide a comprehensive and more operational understanding of mainstreaming; that is: the different mainstreaming strategies required to achieve sustainable change."

Wamsler, C., Brink, E., & Rivera, C. (2013). Planning for climate change in urban areas: from theory to practice. Journal of Cleaner Production 50(1), 68-71.

http://dx.doi.org/10.1016/j.jclepro.2012.12.008



Critiquing the status quo

"Interest in health education has been rising because there is increasing evidence that many of the most serious problems of health are associated with specific behaviors and lifestyles. Government statistics reveal that "Every day in England heart disease and stroke kill nearly 550 people; every day 370 die from cancer; every day 26 perish in accidents, many of them on our roads" (Bottomley, 1993, p. 2). Many of these deaths are premature and could be prevented if individuals changed their behavior, especially if they stopped smoking, altered their diet or gave up driving."

Norton, L. (1998). Health promotion or health education: what role should the nurse adopt in practice? *Journal of Advanced Nursing*, *28*(6), 1269-1275. https://doi.org/10.1046/j.1365-2648.1998.00835.x



- Another way to engage in critical appraisal is using the general 'they say, I say' approach.
 - 'They say' = the literature, specifically, the authors who impact and influence your research, plus other sources you reference
 - 'I say' = you, as the researcher, engaging with the literature (as you understand it) and the authors you use

Graff, G., & Birkenstein, C. (2014). They say, I say: The moves that matter in academic writing. W.W.
 Norton & Company.



- "In recent discussions of ____, a controversial issue has been whether ____. On the one hand, some argue that ____. From this perspective, ____. On the other hand, however, others argue that ____. In the words of ____, one of this view's main proponents, "____." According to this view, ____. In sum, then, the issue is whether ____ or ___.
- My own view is that ____. Though I concede that ____, I still maintain that ____. For example, ____. Although some might object that ____, I would reply that ____. The issue is important because ____."
 (Graff & Birkenstein, 2014, p. 9).



- Acknowledge, Redirect, Carry On...
 - 1) Acknowledge the source directly, in which you **highlight** the productive ideas while also **underscoring** the unproductive ideas.
 - 2) Redirect the encounter with the source, in which you focus specifically on your research questions and design.
 - 3) Carry on with **explaining** how your research is new, how it contributes to knowledge, and/or why it is important.



Common Issues with Literature Reviews

Issue #4:

They lack transitional logic.



- We can describe "transitional logic" using the following terms:
 - Transitions
 - Meta-Text



- "According to [Author]..."
- "[Author] states that..."
- "While [Author] is correct about...
- "[Authors] disagree with the literature because..."
- "Our findings correspond with the results generated by [Authors]..."

http://www.phrasebank.manchester.ac.uk/



Refer to author(s), summarize terms, & use action verbs

- "Bury's (1982) concept of chronic illness as biographical disruption serves as a starting point in the analysis of the experience of waiting for a liver transplant. Bury characterized the complex ways in which the disruption of personal continuity occasions a fundamental rethinking of a person's biography and self-concept. He theorized that the disruption is on multiple levels, affecting not only metacognitive levels of meaning but relationships and material affairs as well. For his understanding of the experience of illness, Bury drew on Giddens's (1979) notion of a critical situation in which three aspects are attained: (a)...; (b)...; and (c).... Bury viewed medicine as a cultural system that is both a resource in times of distress and "a constraint in their search for the deeper meaning of experience" (p. 179)."
- "Using this notion of medicine as a cultural system, we can begin to interpret the
 [experience of waiting for a liver transplant]..."
- Brown, J., Sorrell, J.H., McLaren, J., & Creswell, J.W. (2006). Waiting for a liver transplant. *Qualitative Health Research*, 16(1), 119-136. https://journals.sagepub.com/doi/10.1177/1049732305284011



"Adapting an explanation by Bauer (1984, 1986), Ellis & Young (1990) have suggested that the Capgras syndrome represented a 'mirror state' of prosopagnosia in that the ventral route from the visual centres to the temporal lobes may be preserved (so as to allow overt, conscious face 'recognition'), but the dorsal visual route responsible for giving the face its emotional significance is damaged. Perhaps the only way the patient can make sense of the absence of this emotional arousal is to form the belief that the person he is looking at is an imposter."

Transitioning to an argument

- "This explanation leaves two questions unanswered, however. First, why is the phenomenon specific to close relatives? One possibility is that only with one's parents or spouse does one expect a glow of arousal, and..."
- Hirstein, W., & Ramachandran, V. S. (1997). Capgras Syndrome: A novel probe for understanding the neural representation of the identity and familiarity of persons. *Proceedings: Biological Sciences*, 264(1380), 437-444. https://dx.doi.org/10.1098%2Frspb.1997.0062



- Using <u>meta-text</u>, or 'writing about your writing', is helpful when guiding and orienting your readers within the organization of your ideas.
 - E.g., conceptual 'handholds' or 'roadmaps'
 - Where have we been?
 - Where are we now?
 - Where are we going?



"In this literature review chapter, I will unpack the major assumptions about..."

"As discussed above in Section 2.4, the most important concept of this portion of the literature is..."

"We can observe that the participants' responses correspond with the data represented in Table 2, which..."



- Where in your literature review could you use meta-text?
 - Stating the purpose of the literature review
 - Starting a new section
 - Introducing a new concept, theory, or method
 - Beginning to discuss new authors or studies
 - When summarizing the findings



Avoid "falling down the rabbit hole" of reading and writing.

What does this mean?



- Students will continue to research, read, write, and work on their literature reviews to the point that:
 - They do not finish them on time
 - They do not submit work to their instructors or chapters to their supervisors
 - They end up falling behind on other work that needs to be done



- Why do these things happen?
 - Lack of writing experience
 - Self-perceptions of imposter syndrome
 - Unfocused research project and/or research question
 - Unclear expectations from your supervisor and/or committee members
 - The 'infinite regress' of finding more sources



You cannot read and write about everything.

Your literature review is a "snapshot" of a moment that captures not just what the academic conversation was focused on given your field/discipline, project, and research question(s), but also where you were in the development of your research.

If you want to say more, then save that work for next time.



How can students avoid "falling down the rabbit hole" during the literature review-writing process?



Clarity, Focus, Concision:

— Which sources and contents satisfy your research question(s) and project design?

Page/Word Counts:

— Genres of writing—essay, proposal, exam, thesis, dissertation, etc.?



Benchmarks:

— When is your work 'good enough' to submit?

Deadlines:

— Personal, supervisor, department/program, Faculty of Graduate Studies, etc.?



Making Final Revisions

Examine literature reviews from your field/discipline.

- Consult writing guides.
 - https://ucalgary.ca/student-services/student-success/writing-support
 - (bottom of page: "Resources: Writing Support")
 - https://owl.purdue.edu/site_map.html

- Have someone else read your work.
 - Friend, classmate, instructor, supervisor, writing tutor, etc.



One-on-one Writing Appointments (Elevate appointments calendar):

- available 7 days/Week (During Fall & Winter Terms) at different times: 9 a.m. 9 p.m.
- Students can book up to 2 appointments/week
- Appointments are available in-person or online (via Zoom)

Writers' Space : (Elevate SSC events calendar):

- Drop-in sessions
- Feedback from a tutor
- Sensory-friendly options

Workshops

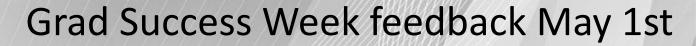
- Core/Foundational series
- Special/advanced skills series
- Online and in-person options available

Student Success Centre



Where? → 3rd Floor of the TFDL How? → Book appts at:

https://www.ucalgary.ca/ssc/





Thank you for attending Grad Success Week!

Please scan the QR code and fill out a short survey using the link in the chat telling us about your experience. We will use the feedback you provide to continue to improve Grad Success Week in the future!





We appreciate your participation: Enter a draw to win prizes!

- Attend one session in each stream
- Ask your moderator / presenter to stamp your card
- Drop your card off at the front desk at the SSC or Let it Grow Event or email it to <u>success@ucalgary.ca</u>

- What if I attended a session online?
 - No problem, write the session on the card and once we confirm your attendance, we will enter you into the draw!



Questions?