



**UNIVERSITY OF  
CALGARY**

# **Graduate Programs in Education: The Ins & Outs of Academic Writing**

**Writing Support Services**

**Student Success Centre**

**June 9<sup>th</sup>, 2021**

# Learning Outcomes

- **Purpose of today's presentation?**
  - As part of your research process as a graduate student, you will be expected to produce writing, such as **literature reviews**, that presents a synthesis of current knowledge in your field related to your project.
  - However, any literature review is more than a series of summaries—it is a way to dive deeply into your research.

# Learning Outcomes

- **Purpose of today's presentation?**
  - This workshop offers approaches that Werklund students can incorporate into their research when identifying and evaluating sources, as well as when organizing their initial findings. This session will also cover rhetorical strategies students can use to write 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?

- **To survey what research has been done to date**
  - *Scope and relevance*
  - Primary and secondary sources

# Why Write a Literature Review?

- **To situate your work within the body of research in your field or discipline**
  - *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

# 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.



# Types of Literature Reviews

- There are three major types of literature reviews:
  - **1) Thematic** reviews
  - **2) Chronological** reviews
  - **3) Methodological** reviews

# Types of Literature Reviews

- **1) Thematic reviews**
  - Topics, contents, issues, problems
  - Most to least important (or vice versa)
  - Logical order of ideas
    - E.g., A, B, C, D, E, etc.
  - Supporting or opposing a source (and why)

- **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.

# Types of Literature Reviews

- You can use more than one type to organize your research and writing.
  - E.g., a thematic **and** 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 framework, etc.

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

- **Issue #1:**
  - They become a “shopping list” of descriptions.

# Issue #1: Not a “Shopping List”

- Topics should relate to each other and support the main organizational principle—your literature review **is not** a shopping list.



# Issue #1: Not a “Shopping List”

- **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.”

# Issue #1: Not a “Shopping List”

- 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 are these authors relevant to 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?

# Issue #2: Not a “Shopping List”

- **Manage your material** to improve the readability of your text and the flow of ideas.
- Think about your literature **as if** you were telling a story.
  - **Examples?**
    - People, issues, conflicts, important moments, dramatic shifts, resolutions, narrative structure, past/present tense, etc.

- **Issue #2:**
  - They lack a clear, organizational principle.

# Issue #2: Organizational Principles

- **Some questions to consider...**
  - How does the organizational structure of the literature review support its purpose?
  - In other words, why does it make sense to use a thematic, methodological, and/or chronological organizational structure?
- **Focus on laying things out in your introduction, body, and conclusion paragraphs!**

# Issue #2: Organizational Principles

- **Introduction:**
  - **Objective**—what you aim to achieve through the literature review; how the literature relates to your research
  - **Overview**—contextualize your research topic
  - **Organization** of sources according to theme, chronology, methodology, or mix—describe how your evaluation is arranged; in some cases, this may include inclusion and exclusion criteria

# Issue #2: Organizational Principles

- **Body:**
  - **Analyze** and **synthesize** sources
  - Critically **evaluate** sources
  - **Highlight** strengths, weaknesses, arguments, etc.
  - **Arrange** logically—thematic, chronological, methodological, mixed, etc.

# Issue #2: Organizational Principles

- **Conclusion:**
  - **Summarize** your analysis from the literature review
  - **Connect** this summary back to your research
  - **Write** about how your research builds upon previous studies, addresses gaps/issues/limitations, etc.



# Issue #2: Organizational Principles

- The majority of studies have overlooked <issue>.
  - “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. **Almost none of the hundreds of studies summarized in [2, 3] make use of any statistical methods** 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

Locating  
the gap in  
research



# Issue #2: Organizational Principles

## Identifying consensus in the literature

- “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].”
- “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>

# Issue #2: Organizational Principles

## 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](https://doi.org/10.1016/S0002-7138(09)60332-0)

# Issue #2: Organizational Principles

- However, these organizational principles need to be anchored to a train of thought and rationale for doing your research.
- Good argumentation can lead to good organization.

# Issue #2: Organizational Principles

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

# Issue #2: Organizational Principles

- **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)

# Issue #2: Organizational Principles

- **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)

# Issue #2: Organizational Principles

- “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>



# Issue #2: Organizational Principles



ANALYZE/SUMMARIZE

- “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).”



SYNTHESIZE/  
RECONTEXTUALIZE

- “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>

# Issue #2: Organizational Principles

- What does good argumentation lead to good organization within your literature review?
  - **Toulmin's Method of Argumentation**
    - **Claim -> Ground -> Warrant**
  
- Purdue Online Writing Lab. (n.d.). *Toulmin argument*.  
[https://owl.purdue.edu/owl/general\\_writing/academic\\_writing/historical\\_perspectives\\_on\\_argumentation/toulmin\\_argument.html](https://owl.purdue.edu/owl/general_writing/academic_writing/historical_perspectives_on_argumentation/toulmin_argument.html)

# Issue #2: Organizational Principles

## Toulmin's Method of Argumentation



- **Main Idea:** Thesis and/or topic sentence(s) to argue or to prove something
- **Support:** Evidence, data, primary and secondary research, statistics, etc.
- **Bridge claim and ground through analysis and synthesis**

# Issue #2: Organizational Principles

- “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>

# Issue #2: Organizational Principles

CLAIM

GROUND

WARRANT

- “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.”

- **Warrants give arguments direction and cohesion.**

- 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>

# Issue #2: Organizational Principles

- Using Toulmin's method of argumentation allows you to focus on what is important about your sources. It also grants you a space on the page to qualify and support your ideas.
- Furthermore, It gives your reader a clear, consistent structure of words, sentences, and paragraphs to follow in logical order—**A, B, C, etc.**

- **Issue #3:**
  - They lack a substantive critical appraisal.

# Issue #3: Lack of 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.



# Issue #3: Lack of Critical Appraisal

- **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/>

# Issue #3: Lack of Critical Appraisal

- **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/>

# Issue #3: Lack of Critical Appraisal

## Conflicting results



- “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.**”

- 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>

# Issue #3: Lack of Critical Appraisal

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>

# Issue #3: Lack of Critical Appraisal

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.”

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- **Issue #4:**
  - They lack transitional logic.

# Issue #4: Transitional Logic

- **Signal phrases** are key when indicating a shift from your ideas to those from the literature.

# Issue #4: Transitional Logic

- What are signal phrases?
- Words that **explicitly reference the author(s) of a text** to demonstrate **the indebtedness of your ideas** (e.g., analysis, interpretation, review, etc.) and **the breadth and depth** of your research.



# Issue #4: Transitional Logic

- **When would you use them?**
  - Paraphrasing an author's ideas
  - Directly quoting an author's specific text

# Issue #4: Transitional Logic

- **How do you use them when writing?**
  - Action verbs
    - [https://library.ucalgary.ca/ld.php?content\\_id=14258384](https://library.ucalgary.ca/ld.php?content_id=14258384)
    - E.g., affirms, ascertains, believes, concludes, demonstrates, emphasizes, finds, indicates, interprets, measures, etc.
  - Consistent verb tense (whenever possible)
  - Indicate the author of the source (and perhaps its title)

# Issue #4: Transitional Logic

- “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/>

# Issue #4: Transitional Logic

Refer to  
**author(s)**,  
*summarize*  
*key 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]...”

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# Making Final Revisions

- **Examine literature reviews within your field.**
- **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](https://owl.purdue.edu/site_map.html)
- **Have someone else read your work.**
  - Friend, classmate, instructor, supervisor, writing tutor, etc.

# Writing Support Services

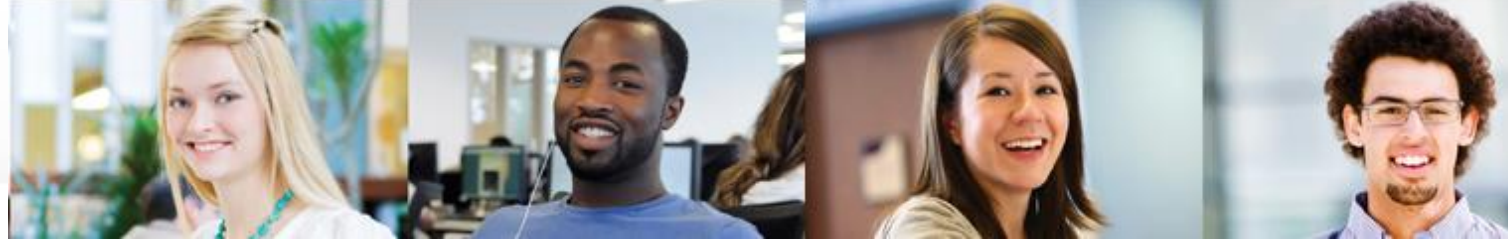
- **Goal:** To help students become better writers including gaining greater capacities as self-editors of their own work
- Students can choose to focus on any stage of the writing process, including brainstorming, structure, organization, thesis statement, literature reviews, citations, paraphrasing, etc., when working with us.
- **We use Zoom to run Writing Support Services.**

- **Writing Support Services (Appointment Calendar)**
  - Online 1-on-1 Writing Support Appointments:
    - **7 days/week** at different times between **7 AM-9 PM (MDT)**
    - You can book up to **3 appointments/week** with a **max of 2 appointments/day**
  
  - If no appointments are available:
    - At times, we receive last minute cancellations. Therefore, keep checking the Writing Support schedule for any appointment openings.

- **Writing Support Services (Appointment Calendar)**
  - Asynchronous Appointments:
    - Poor internet connection, time zone differences, computer availability, etc.
    - [wconline@ucalgary.ca](mailto:wconline@ucalgary.ca)



- **Writing Support Services (Events/Workshops Calendar)**
  - Graduate Writing Community:
    - **Mondays and Thursdays 1-5:30 PM (MDT)**
    - <https://careerlink.ucalgary.ca/myAccount/ssc/sscEvents.htm>



## STUDENT SUCCESS CENTRE

Visit us online!

<https://careerlink.ucalgary.ca/home.htm>

(“Student Success Centre,”  
then “Writing Support”  
in Dashboard)



<https://ucalgary.ca/student-services/student-success>