Major Research Project

STUDENT LEARNING SUPPORT

Graduate Student Support
Ryerson University sits on the Traditional Territory of the Mississauga’s of New Credit First Nation. We are honoured to be a part of this community of our Indigenous colleagues and students.

- Chi Miigwetch
Overview and Introduction
In This Presentation

- Expectations at the graduate level
- MRP section guidelines
Why Do We Do Academic Work?

The goal of all academic work is to contribute an original idea to the field.
Undergraduate Level Writing

At the undergraduate level, you learned that your papers had to:

• be well-presented and properly formatted
• be well-structured and clear
• make use of appropriate research methods
• demonstrate critical thinking
• demonstrate analysis and synthesis of ideas
• make consistent use of a citation style
Graduate Level Writing

• requires a greater depth of research
• involves a broader scope of literature, including a (thorough) literature review
• indicates an understanding of core literature
• demands more critical analysis
• develops an original argument
Graduate Level Writing (continued)

In addition, graduate level work should

• apply theory to practical and/or conceptual problems
• re-consider and re-evaluate theory
• broaden the scope of already existing research
• contribute to current academic discourse
General Structure Guidelines

- Introduction
- Conceptual / Theoretical Framework
- Literature Review
- Methodology
- Findings / Results
- Discussion
- Conclusion
Introduction

- Problem statement
- Purpose statement
- Importance of your research
- Research question
- Thesis
- Contextualizing your research: historically and/or in the present
- Road map for your readers

Introduction: You Might Also Include

- Key terms and their definitions
- Key theories and concepts within your topic
- Key papers that led to your study
Conceptual / theoretical frameworks

- Key theories and concepts (including knowledge paradigms)
- Prior knowledge / experiences
- Definitions you will use
Lit Review

• Make the topic interesting for the reader
• Teach the reader something new about the topic
• Avoid the “list effect”
• Include descriptions and analyses of the literature (not just summaries). Review from a point of view
• Highlight trends as well as inconsistencies in the literature
• Make an argument to help the reader draw conclusions about the literature
• Point out how your work both differs from and connects to the literature you describe in your review

Methodology

• Discuss how you go about doing your research (including approach, strategy etc.)

• Provide a complete account of all the steps in your study AND your rationale for each step

• Present those steps in logical order
Methodology (continued)

- Describe methodological insights you gained while doing your research?
- What “rules” of method have you broken or “bent” and to what effect?

Results / Findings

- Organize your findings in a logical manner under major headings (themes) and sub-headings
- Show a summary of your findings at the end
Discussion

• Address your research question with reference to your results / findings

• Explain and put findings in context

• Describe some possible limitations to your research

• Comment on the significance of your findings

Conclusions

- Summarize your major argument

- Discuss implications of your work for theory, practice, or policy

- Discuss future research: identifying gaps, inconsistencies, controversies, etc.

Literature Review
Overview

• What is a Literature Review?
• The four major steps.
• What is the purpose? Elements?
• Problem formation.
• Finding, evaluating & including literature.
• Writing: outline & paper.
• Writing as part of a thesis.
What is a Literature Review?

• A survey of published materials that are relevant to a particular issue, theory or area of research.

• It provides a description, summary, and critical evaluation of each work.
4 Steps

• Problem formation
  • What is the topic being examined?
  • What are the associated issues?

• Literature search
  • Find related materials...how?
4 Steps

• 3. Evaluation, Analysis and Outline
  • Which materials are especially significant to your particular topic?
  • What do these materials propose about your topic?

• 4. Write and Revise
  • A discussion of the findings and conclusions of significant literature
Purpose of a Literature Review

- To place each individual work in the ‘grand scheme of things’:
  its contributions in the context of the understanding of this subject

- To identify new interpretations of previous work
Purpose of a Literature Review (continued)

• To resolve conflicts between contradictory previous studies.

• To identify previous scholarship, in order to prevent duplication and repetition.

• To determine the way forward for further research.
Elements of a Lit Review

• Overview of the subject, issue or theory being considered and the objective of the review.

• Division of works into categories (eg. in support, against, alternative offerings) and an organized presentation.

• Explanation of similarities and differences between works - identify areas of controversy.
Elements of a Lit Review (continued)

• Conclusions on which works are most successful in their arguments, most convincing, and contribute to the development and understanding of the topic.

• A synthesis of results, summarizing what is and is not known.

• Formulate questions that require further research.
Problem Formation

• Make a list and define major terms:
  • Make sure you understand them and can use them as keywords for library and Internet searches.

• Define the purpose of your lit review:
  your audience, the scope of the review, the type of publications you are using (journals, qualitative research, etc.), and the time you have to complete it.
Problem Formation (continued)

• Determine how you will organize your sources (by trends, theories, chronology, authors, methods, themes, research questions, etc.).

• Determine what is most important to cover (for example theories, authors, or methods you must absolutely discuss).

• Try to relate the points to one another and order them logically (you can number them by order of importance, or organize chronologically).
What literature should be included?

• Before including works, be sure to assess their excellence and relevance.

• Consider the author’s credentials (past work, education, authority).

• What evidence is provided?
What literature should be included? (contd)

• How objective is the work? Is it prejudiced? Is contrary data considered? Is certain information ignored?

• Which of the arguments are most/least convincing?

• Does the work make a significant contribution to an understanding of the subject?
Finding Literature

• Identify a few key papers from your current knowledge base.

• Consult librarians and professors.
  • Search the library and online databases.

• Look at the references listed by the texts you already have and locate them.
Finding Literature (continued)

• Forward citation
  • Through an online search, find papers that reference your key literature.

• Make your selection based on relevance, date, breadth, depth, and requirements.
Evaluate the Literature

• Critical thinking
  • Discern the validity and authority of an argument through reason and logic.

• Analysis
  • Take apart and understand ideas.

• Synthesis
  • Bring together parts of different arguments to produce a cohesive, coherent and ideally original perspective.
Evaluate the Literature (continued)

• Break down information into its component parts and separate important aspects of information from the less important.

• Analyze and critically appraise component parts of argument.

• Discuss the pros and cons of the components.

• Demonstrate understanding of theory.
Create Your Outline

• Can be as detailed as you want.

• Basic needs:
  • Elements of the introduction.
  • The main arguments and their supporting facts and evidence.
  • Shows organization and flow: how are you moving between authors and topics?
  • Elements of the conclusion.
Writing

• Summarize and synthesize your sources. Remember that a literature review is a piece of discursive prose, not a list summarizing one piece of literature after another.

• Use caution when using direct quotations. The survey nature of the literature review does not allow for in-depth discussion or detailed quotes from the text.
Writing (continued)

• When paraphrasing a source that is not your own, be sure to represent the author's information or opinions accurately and in your own words.

• Verify that all the sources you cited in the text are in the reference list and vice-versa!

• Revise, revise, revise.
Lit Review as Part of MRP

• Explains how the work of others has led up to and contributes to your coming work.

• Displays your knowledge of the literature and field of scholarship – validates you as an author.

• Provides readers with background information and related studies necessary to understanding your work.
Lit Review as Part of MRP (continued)

• Provides readers with an historical perspective as to the evolution of the ideas being considered.

• Leads readers to the problem that you undertake in your work and shows how it is a new perspective.
Methods
Methods: Overview

- This is where you discuss how you go about doing your research
- Provide a complete account of all the steps in your study
- Present those steps in logical order
- Include steps and methods for collecting and analyzing data
- Explicitly share the rationale behind your decisions
Methods: You Might Also Include

• What expectations exist for you in your discipline, university, among your committee members?
• What are some terms and keywords specific to your chosen methods?
• Describe a methodological insight you gained while doing your research?
• What “rules” of method have you broken or “bent” and to what effect?

Methods: Structural Elements

• Introduction
• Research perspective
• Research Design
• Research Questions and (Hypo)theses
• Subjects, Participants, Population, and Sample
• Research Variables
• Instruments and measures of data collection and data analysis
• Validity, reliability and/or triangulation
• Summary

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis, 37
Introduction: “Macro view” of the study

• Overview for chapter 3
• Chapter’s organization
• Researcher’s Intent
• Rationale for the Study
• Explanation of the context
• Research Questions
• (Hypo)theses
• ...

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Research Perspective: Explain the Boundaries

For example:
• Phenomenological
• Scientific
• Positivist
• Naturalistic
• Reductionist
• Descriptive
• ...

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Research Design: Explain the Structure

• Methods for data collection, recording and analysis

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Research Questions (and Hypotheses)

Restate them from Chapter 1
• What? How? Why?

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Subjects, Participants, Population, and Sample

• Sample Criteria: Gender, age, race, ethnicity, socioeconomic standing, major, marital status, etc.
• Selection process, sampling method
• Number of dropouts and their reasons for withdrawing from the study

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Research Variables

• Independent
• Dependent
• Confounding
• Control
• Primary
• Secondary

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Research Instrument

• Complete a detailed description of the research instruments and their validity and reliability

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Pilot Study

• Small-scale version of the research, a trial run to test or assess the research instrument

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Data Collection Procedures

• Design
• Participants
• Instruments
• Procedures

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Data Collection and Analysis

- Methods
- Software
- Statistical procedures
- Qualitative content analysis methods

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Setting and Environment

• How and why did you chose the site?
• Circumstances within the environment that may affect the study

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Bias and Error

• Acknowledge potential bias and error:
  • Sources
  • Conditions
  • Circumstances

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Validity

• External
• Internal

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Trustworthiness of Data

• Triangulation
• Credibility
• Transferability
• Dependability
• Confirmability

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Reliability

• The study’s ability to be replicated and produce similar results

• Proof that the instrument you are using produces consistent results over time

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Summary or Conclusion

• Reiterate all the salient points covered in the chapter
• Outline what to expect in the next chapter

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Results
Introduction

• States the purpose of the chapter
• Summarizes how the results are organized
Results: Overview

• Report as accurately and precisely as possible without adding interpretation
• Report ethically
• Report in accordance with the requirements of your discipline and
• Report consistently with the norms of your academic department

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Organizing the Results

How could you organize your results?
There is no one “correct” way! Here are some possible ways:

• Visual: charts, graphs, tables, figures, maps, blueprints, drawings, matrices, etc.
• If relevant, first – response rate and respondents demographics
• By research questions or theses
• By themes
• By stages in the experiment
• Other
Important Questions to Ask:

• How should you adapt your report of results to the needs of your audience?
• How do you make the distinction between conclusions based on substantive data and those that may appear to be speculative?
• How do you ensure that your report of results continues to address issues of confidentiality?

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis, 37
3 Kinds of Coding:

- Open: reviewing the entire text until saturation
- Axial: relating categories to other (sub)categories
- Selective: integrating and refining the theory (single category)

Adapted from Rudestam and Newton Surviving Your Dissertation, p. 159
Important to Emphasize:

• Validity
• Credibility
• Accuracy
• Significance

of each result
Summary of Results and Transition

- Reiterate all the salient points covered in the chapter
- Outline what to expect in the next chapter

Adapted from Calabrese, R.L. The Elements of an Effective Dissertation & Thesis
Analysis and Conclusions
Analysis and Conclusions: Overview

• Introduction
• Summary of Results
• Discussion of Results
• Implications for Future Research
• Implications for Practice and Recommendations
• Relationship of Results to Theory
• Limitations
• Summary and Conclusion

Adapted from *The Element of an Effective Dissertation and Thesis* by R. L. Calabrese
Introduction

Briefly introduce the purpose of this section
Briefly outline the content
Summary of Results

Give a concise summary of Results
Discussion of Results

• Interpret
• Conclude
• Explain
• Connect to relevant literature
Implications for Future Research

• How does your work instruct future research?
• How can your work benefit future researchers?
• Identify improvements
• Does the topic warrant additional inquiry? If so, suggest future areas of inquiry and the design
Implications for Practice and Recommendations

• How do your research results contribute to current practice?
• How might they potentially change it?
• What is the impact of your research on current policies?
Relationship of Results to Theory

• Relate your results to existing theory
• Connect your results to the works reviewed in the literature review section
• Explain how your results fit with or contradict existing theory
Limitations

• Discuss the limitations of your study related to validity, reliability, credibility, trustworthiness, and other methodological issues that occurred during your study.

• Reflect on potential designs of future studies
Summary and Conclusion

• Add a comprehensive summative statement of your study
• Highlight any points you want to emphasize
• Suggest ideas for future research
• Restate the significance of your study
And then...
CELEBRATE BECAUSE YOU DID IT!!!
You CAN do it!!!
Graduate Student Support

• One-on-one tutorial sessions to help students with writing and referencing during any stage of the process.
• Two 50-minute appointments per week.
• Book appointments online.
• Online workshops on a variety of graduate writing-related topics.
• Useful guides and resources on the website.
• Be sure to make an appointment on our website a week or two before your desired date as spots fill up quickly.

• 4th floor, Student Learning Centre
• Visit Student Learning Support website
• (416) 979-5000 ext. 5978