Writing Well-Organized Paragraphs
Part One: Introductions and Conclusions

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Learning Outcomes for Part One

By the end of this presentation, you should be able to:

- Write a coherent introduction that meets your reader’s expectations.
- Write a coherent conclusion that successfully wraps up your paper.
Overview of Screencast (Part One)

1. The shape of an academic paper.

2. Successful introductions: the general-specific pattern.

3. Reader expectations for an introduction.

4. Successful conclusions: the specific-general pattern.
The Shape of an Academic Paper

Coherent papers are shaped like an hourglass:

- The introduction starts broadly.
- The body is narrower in focus.
- The conclusion broadens out again.
The Introduction: General To Specific

○ A coherent introduction begins with the broad context or the background to the topic or problem.

○ It then narrows down to a thesis statement, research questions or objectives.

○ A short explanation of the paper’s organization or a statement of the study’s significance may follow.
Introduction: General To Specific (cont’d)

In northern regions, river ice cover plays a crucial part in maintaining the integrity of ecosystems. Ice cover behavior is influenced by geological structures, hydrological processes and meteorological conditions, making research in this field a complex undertaking in which many factors must be considered. Because of this complexity, researchers studying river ice have embraced a model known as transdisciplinary research. Rather than focusing on their own narrow discipline, transdisciplinary researchers share information with those from other disciplines to solve multi-faceted problems. Using a transdisciplinary model that incorporates sustainability science, my research focuses on river ice cover on the Slave River and Delta in the Northwest Territories. This paper argues that because it enables researchers to tackle complex environmental problems, transdisciplinary research offers the most appropriate methods for studying river ice on the Slave River and Delta, particularly at a time when rivers, their ecosystems, and the communities they sustain are increasingly threatened by climate change.

Courtesy of a former student
From General To Specific

1. RIVER ICE IN THE NORTH
2. ICE COVER BEHAVIOUR
3. RESEARCH COMPLEXITY
4. RESEARCH TYPE
5. RESEARCH TOPIC
6. THESIS
The Introduction: Reader Expectations

- Arousing interest
- Explaining theories and defining terms
- Introducing existing research
- Introducing a research gap (especially in proposals, theses and dissertations)
- Demonstrating why the topic or problem matters
- Explaining the organization of the paper (optional)
Thesis Proposal Intro: General to Specific

Cold regions in high mountains are considered to be sensitive to shifts in climatic conditions and, thus, to provide excellent indicators of climate change. ... In the future, the decreased water supply resulting from the loss of glaciers will have a particularly severe impact on arid and semi-arid regions.

Snow cover on high mountains is measured using glacier hydrology models. Many of these models use methods that are simple and conceptual or remote sensing and empirical. ... However, these glacier hydrology models may not work in remote mountains, where only sparse data are available.

The purpose of my research is to develop a glacier-melt model to evaluate the climate change impact on downstream water resources in the Canadian Rockies ...

Specific objectives of the study are as follows:
1. To develop an energy-balance hydrological model for the high mountains to study snow and glacier-melt processes.
2. To test the model using field-data archives and new measurements in the Canadian Rocky Mountains.
3. ...
Shape of the Introduction

- Cold Regions in MTS -- Climate Change
- Climate Change -- Water Supply
- Models to Measure Snow Cover
- Problems with the Models
- Purpose of the Study
- Objectives
The Conclusion: Specific to General

- Broadens out, taking the paper from specific claims to the end.
- Restates the position/thesis/conclusion but in different words.
- Summarizes the reasons put forward in the paper to support the position or conclusion.
- Points to the limitations of the paper or study.
- Discusses research, real world or policy implications.
- Suggests areas for further research.
Conclusion: Specific to General - Example

This paper has argued that the methods offered by transdisciplinary research are those best suited to study river ice cover in general and, specifically, the ice cover in the Slave River and Delta. As the air temperature increases due to global warming, the ecology of the Slave River region is changing, and threats from flooding and other disasters are consequently increasing. The complex and multi-dimensional ecological problems facing the people, fauna and flora of the Slave River and Delta will not be solved through discipline-specific research. Transdisciplinary research enables Slave River researchers to share information not only with one another but also with the indigenous peoples who live near the banks of the river. This type of research also enables the team to consider a wide array of variables and methods, such as modelling, remote sensing technology, sustainability research, indigenous knowledge and communication research. This research model may offer a way forward not only for the Slave River and Delta but also for other polar and northern regions facing an uncertain future in the face of global warming.

Courtesy of a former student
Shape of the Conclusion

THESIS

GLOBAL WARMING - SRD

COMPLEX PROBLEM – TD

IMPLICATIONS – POLAR REGIONS
Summary

- Most introductions follow a general to specific pattern – starting with the broad topic and narrowing to the thesis (or the conclusion), research questions or objectives.

- Readers expect introductory paragraphs of an academic paper to arouse interest, define terms, introduce existing research and a research gap and demonstrate why the topic matters.

- Most conclusions follow a specific to general pattern, starting with restating the thesis (the conclusion) and broadening out to implications.