Phosphorus concentration and load dynamics in the western lake erie basin under recent nutrient management regulations

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# **Introduction**

The introduction should include the following elements:

## **Background and Context**

Lead the reader into the topic and scope of your research.

## **Problem Statement**

Describe the theoretical or practical [research problem](https://www.scribbr.com/dissertation-writing-roadmap/problem-statement/) that you want to address. What is already known about the problem? What is missing from current knowledge?

## **Research Questions**

State the specific [question(s)](https://www.scribbr.com/dissertation-writing-roadmap/research-questions/) that you aim to answer.

## **Relevance and Importance of the Research**

Make it clear what new insights you will contribute, who they are relevant to, and why the research is worth doing.

# **Literature review**

The [literature review](https://www.scribbr.com/dissertation/literature-review/) summarizes, compares and critiques the most relevant scholarly sources on the topic. There are many different ways to structure a literature review, but it should explore:

## **Key Concepts, Theories and Studies**

Compare, contrast, and establish the theories and concepts that will be most important for your project.

## **Key Debates and Controversies**

Identify points of conflict and situate your own position.

## **Gaps in Existing Knowledge**

Show what is missing and how your project will fit in.

# **Research design and methods**

Here you should explain your approach to the research and describe exactly what steps you will take to answer your questions.

## **Research design**

Explain how you will design the research. [Qualitative or quantitative](https://www.scribbr.com/methodology/qualitative-quantitative-research/)? Original data collection or [primary/secondary sources](https://www.scribbr.com/citing-sources/primary-and-secondary-sources/)? Descriptive, correlational or experimental?

## **Methods and Sources**

Describe the tools, procedures, participants and sources of the research. When, where and how will you collect, select and analyze data?

## **Practical Considerations**

Address any potential obstacles, limitations and ethical or practical issues. How will you plan for and deal with problems?

# **Implications and contributions to knowledge**

Finish the proposal by emphasizing why your proposed project is important and what it will contribute to practice or theory.

## **Practical Implications**

Will your findings help improve a process, inform policy, or make a case for concrete change?

## **Theoretical Implications**

Will your work help strengthen a theory or model, challenge current assumptions, or create a basis for further research?

# **References**

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# **Research schedule**

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| **Research phase** | **Objectives** | **Deadline** |
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