

ENV 6020 Research Methods and Thesis Design

Science-based Thesis Proposal Format

Thesis proposals are intended to guide your research project. If you cannot develop a specific and coherent thesis proposal, you will struggle to complete your thesis project in a timely manner. There is a strong correlation between the level of detail contained in a thesis proposal and actual project completion. Your Thesis Committee will expect a proposal that will lead you to successful completion. Ambiguous and vague proposals only lead to persistent frustration in completing the thesis. If a thesis proposal is too open-ended, Committee expectations can change. Thesis proposals don't need to be long (e.g., no more than 2000 words), but they should be specific.

None of the effort you put into developing a good thesis proposal is wasted. Most of the proposal plugs right into the finished thesis project. The better the proposal, the less work on the final thesis. In theory, only the "Results" and "Discussion" sections will need to be written if the proposal is sound.

A science-based thesis proposal should contain "mock" data so data analysis methods can be meaningfully presented and understood. You should show "mock" results and your interpretation of those results. Once your actual data is collected, you should be able to just run the analysis you've already demonstrated with your mock data.

Title

Select an appropriate title for your research project. A good title succinctly states the nature of the research to be conducted.

Abstract

The abstract is a brief summary of the thesis proposal and the length should not exceed 200 words. The abstract identifies the nature of the research problem and summarizes the methods to be used in the study.

Introduction

- I. An explanatory expression of a problem that explicitly identifies variables and includes:
 - A. A supposition (hypothesis) that the variables identified hold a certain relation to each other
 - B. Presuppositions to justify the supposition. These often come from a brief review of the literature and previous research findings.
- II. An operational expression of that same problem

Note: An *Introduction* section does not need to justify the research through hyperbole, e.g., this research will help find a cure for AIDS. There is an inverse relationship between the quality of a thesis proposal and the language used to justify or rationalize undertaking the study. A good research question and sound research methods to answer the question are all that are necessary to "sell" a research proposal. A thesis is centered on advancing knowledge, not solving the world's problems. Research grant proposals often contain considerable hyperbole and salesmanship, but such language in a thesis proposal is often gratuitous.

Research Objectives [Optional Section]

There are often additional reasons for conducting research and many research projects are multi-faceted. This section is the place to identify additional research objectives that do not neatly fit into a variables/supposition framework.

Methods

- a) Research design. Identify the general type of the research design (e.g., naturalistic, case-study, correlational/differential, experimental) and specific type of research design if applicable (e.g.,
- b) Subjects used (if applicable). Describe the subjects to be used and how they will be recruited or selected. *Note: If your research involves human or animal subjects, you must submit a copy of your thesis proposal to the Green Mountain College Institutional Review Board (IRB) for review and approval.*
- c) Sampling design. Describe how you will sample subjects for data collection (e.g., random, purposive, convenience) and the number of subjects to be selected.
- d) Data collection procedure. Describe how you will collect data.
- e) Materials. Describe materials needed to collect to the data.
- f) Validity and reliability of measurements. Describe the validity and reliability of the measurements and what controls will be used to ensure data quality.
- g) Data analysis procedure. Describe and demonstrate the data analysis methods using “mock” data including statistical procedures for quantitative data and/or coding procedures for qualitative data.

Schedule

This section should contain a list of tasks and milestones for the research project in a table format including any work you have already completed. Discuss any particular challenges that need to be overcome.

Budget

This section describes the financial resources needed to complete the research project and actual or potential sources for the funding. It might be appropriate to have multiple budget scenarios based on different project assumptions.

References

List all references cited in your proposal. Unless otherwise determined by consultation with your Committee members, use the APA style guide.