

## Writing a research proposal

Adapted from 5starassays.com (source: <https://bit.ly/3kW8G90>)

An annotated example can be found here: <https://bit.ly/2I3F7DD>

### Suggested layout for the proposal:

#### TITLE

- The title of your proposal should be concise and clear to clearly indicate your research question.

#### ABSTRACT

- Include your research question, hypothesis, methodology and findings in the abstract of your proposal.

#### INTRODUCTION

- Introduction should include the purpose of research, background information, and significance of your study.

#### LITERATURE REVIEW

- Conduct a detailed literature review to understand the topic and create a clear research question.

#### RESEARCH METHODOLOGY

- Explain the method(s) you will go for to deal with your research question in this section of your proposal.

#### DISCUSSION

- Describe the potential impact and merits of your research to enhance the significance.

#### CITATION

- Give references to the authors and the literature you have studied for your research.

### General advice:

#### The basic purposes of all research proposals are to convince the reader that:

1. The research project has clear objectives;
2. The research project is worth doing (it is significant / important in some sense and will make an original contribution to knowledge / understanding in the field)
3. The proposed methods are suitable and feasible;
4. There is a well thought through plan for achieving the research objectives in the available timeframe.

Note that it is not enough to simply describe previous works, your project, and your methods.

### Research Proposal Outline in Terms of Focus Questions

#### Introduction [Addresses the significance of the research]

1. What have been the drivers of the calculus reform movement at the tertiary level?
2. What are the motivations for introducing modeling as part of this reform?
3. Why do reform approaches need a sound research base in general, and why in particular does using modeling as a reform approach need a sound research base?
4. What then is the broad aim of the proposed research?

#### Previous research [Addresses questions about originality + uses previous research as a foundation for further research]

5. What research has already been done in this area? What deficiencies or gaps need addressing?

6. What other research in related areas has been done that could inform research on the proposed problem?

**Theoretical framework and hypotheses [What theories about learning guided the directions taken by the research and in particular, the hypotheses to be tested?]**

7. What assumptions about student learning framed this research?
8. What theories about student learning were believed to be of potential use and what hypotheses came out of these theories?

**Methods**

9. What methodological issues needed to be addressed by this research?
10. How were the hypotheses tested? Why use multiple methods?
11. How was the sample chosen and does this choice pose a threat to external validity?
12. How were the findings validated?
13. What ethical issues are raised by the proposed approaches and how will these be addressed?