

Guidelines for Research Proposal Project

Goal

Develop and write a NIH R03-style research proposal to test a movement-related research question. The proposed work should cover a time-period of approximately two years. You will need to research the background literature, develop a compelling hypothesis and describe the experimental or modeling approach you will use to test your hypothesis. There should be some mention of statistical testing as well as a description of possible issues with your approach and how you will address them if needed.

Overview

1. Seven page proposal (Specific Aims – one page and Research Strategy – six pages)
2. Main text should be between 10-12pt font
3. Required font is Arial
4. Margins are 1" (left, right, bottom, top)
5. Figures in the Research Strategy are recommended
6. References are not included in the page limits described above.

Description of required sections

A. Specific Aims

This is a one-page summary of your proposed research. It should include a brief half-page description of the problem you are addressing and the background literature. This should be followed by a list of 2-3 'Aims', or goals of the projects. Each Aim should have a hypothesis associated with it. The end of the Specific Aims page should highlight the significance and innovation of the project.

B. Research Strategy

This is the main section of your proposal. Maximum length is six pages and it is required to have the following sections:

1. Background & Significance

Here you will describe the question and highlight its significance (why is it an important question to answer). You will research the background literature and describe what has been discovered thus far. This background literature should help support the research hypothesis you are planning to test. So this section should end, by having the reader believe that the only logical step at this point is to test the hypotheses you propose.

2. Research Approach

Here you will describe your research approach. You can divide this into sub-headings in many ways, so I will leave it up to you. Generally it is good to start with an overview of your approach, so the reader knows what to expect

and can get an overall snapshot of what you are planning to do. Next you can create sub-headings for each Aim or hypotheses and then describe them in detail. For each hypothesis, begin with an overview of the approach, then describe it in greater detail. If needed you will have to describe what populations you will be testing and the number of subjects. Modelling parameters should also be mentioned here. Explicitly state what you will be measuring and what you are expecting to see.

3. Statistics

Here you will describe the statistical tests you will use to test your hypotheses. If in doubt, please check with me.

4. Potential Complications

Here you will describe what could potentially go wrong with your approach (yes, it is possible that things will not work out the way you expect).

Attention to this shows the reviewers that you have thought this through.

5. Timeline

Add a short timeline (can be a chart). It should include expected timelines to test each hypothesis, data collection, data analysis, model simulations, and writing up results for publication.