

Bioinformatics and Bioengineering Summer Institute
How to Write a BBSI Final Report

I. Audience

The proposal should be directed to an audience consisting of your peers. Explain what is necessary so that every one of you will understand the proposal. No need to explain what is common knowledge for all.

II. Format

Write the report in the form of a research article. Consult research articles and choose a format you like. Why a research article?

- It frames a publishable research article that may come from your work.
- It puts in readable form a report of what you have accomplished.
- Research articles by definition are designed to enable others to reproduce and extend your work. Writing a report in this format therefore allows others in your lab (or elsewhere) to benefit from your work and allow it to live on.

Here are further suggestions:

A. Abstract

Confine yourself to about 300 words

B. Introduction

This section connects big problems easily understood by a general audience to smaller problems that you addressed by actual experiments (or computation). Along the way, The section introduces concepts and prior work necessary to understand those experiments. Of course you'll want to refer to prior published work. By its end, it should clearly set forth the question(s) addressed by your work.

C. Materials and Methods (or just Methods, as appropriate)

This section provides a description sufficient to enable someone else to replicate what you did. You may of course refer to published protocols without reproducing their methods.

D. Results

This section will contain actual results, NOT general descriptions of results and NOT just conclusions. Learn to make the distinction! It is reasonable to interpret results as you go along, but only so much as to enable the story to progress. Save broader interpretation for the Discussion section. The Results section should contain lots of actual *data*, usually in the form of *tables* and *figures*..

E. Discussion

Begin this section by reminding us of the specific question you intended to answer (the one you stated clearly in the Introduction) and follow with the major finding you arrived at (to the extent you did). Take us through an argument, citing your results and perhaps the results of others, that leads you to your major conclusion. Along the way indicate the limitations on your conclusions. Here's the place for grand theories, broad interpretations, and future questions that come from your work.

F. References

Use any format you like, so long as it contains titles and all the information needed by the reader to find the article, and so long as you're self-consistent.

G. Appendices

Put here any lengthy data, programs, or procedures that would interrupt the narrative in your article.

III. Length of proposal

It is difficult to predict how long the proposal might be as different people will have different circumstances. Creative use of figures and tables can help reduce the number of words.

IV. How to submit the proposal

Post the file to your web site in any format, though PDF probably combines best portability, convenience, and format flexibility. If you have want to get the file into PDF format and don't know how, see me.