

Title of Your Project

Name

Home University

Mentor(s): Name of your mentors

5 August 2016

Synopsis

This should be a short summary of the most significant findings of your research. The synopsis is a reporting requirement for NSF and should be in addition to the Abstract. Limit 2 – 3 sentences.

Abstract

The abstract is a single paragraph that should 1) state the principle objectives and the scope of the investigation, 2) briefly describe the methods, 3) summarize the results, and 4) state the main conclusions. Use the past tense, but do NOT reference the literature. Do NOT exceed 250 words.

Introduction

The introduction should supply sufficient background to evaluate the results without going to the literature. Try to keep literature review “neat and tidy”.

Hook:

You want to hook the reader. Why did you chose *this* subject and why is it important?

Make sure you:

- 1) State the nature and scope of the investigation
- 2) Review the pertinent literature
- 3) State the reasons for the method of investigation
- 4) Summarize what you did and why
- 5) Pose specific questions that you answer with your results.
- 6) Use the present tense out of respect for published literature.

Notes on References:

1) When citing a publication in the text, refer to the author's name (without initial) and year of publication (e.g., Miller 2003).

2) When referencing a publication by two authors, both names should be given using "&", followed by the year (e.g., Stockhausen & Lipcius 2002).

3) If reference is made to a publication written by more than two authors, the name of the first author should be used followed by "et al.", and then the year (e.g., Seitz et al. 2003).

4) References cited together in the text should be arranged chronologically (e.g., (Stockhausen & Lipcius 2002, Miller 2003, Seitz et al. 2003)).

Methods

The methods section should provide enough information about your project that someone could reproduce your study by reading your paper.

Describe in detail the techniques you employed in your research, including materials, instruments, and data analysis (including the software used to analyze the data).

You should not include any results here, but you should match your paragraph structure and sub-headings if necessary with the results section. Sub-headings should be italicized with a colon, as in the Introduction.

If applicable, include figures. For example, you might want to include a map of your sampling locations or a diagram of your experimental set-up. You should only include the really important figures in your paper; you'll want to include more figures for your presentation. Be brief when referring to figures or tables. For example, "We sampled four locations near Goodwin Islands, York River, VA (Figure 1)".

Results

The results section should provide an overall description of the results. You should not discuss your data, just present it. Use the past tense.

Match your paragraph structure and sub-headings if necessary with the methods section. Sub-headings should be italicized with a colon, as in the Introduction.

Be brief when referring to figures or tables. For example, "There was a positive linear relationship between X and Y (Figure 2)". Or, "There were statistically significant effects of treatment A and treatment B on Y, but no significant interaction (Table 1)".

Discussion

The discussion should:

- 1) Present the principles, relationships, and generalizations shown in results
- 2) Discuss - not recapitulate the results
- 3) Point out any exceptions or lack of correlation and define unsettled points
- 4) Show how your results agree or contrast with published work
- 5) Discuss the theoretical or practical implications
- 6) State the conclusions as clearly as possible
- 7) Summarize your evidence for each conclusion

Most discussions are too long, but you should be sure to convey the significance of the results. Try not to extrapolate too much; it can call your work into question. Always end with a brief summary or conclusion regarding the significance of the work.

Acknowledgements

I thank everyone who contributed ideas, technical help, or equipment- CHANGE THIS AS NECESSARY TO INCLUDE YOUR MENTORS, LAB TECHS, GRAD. STUDENTS, ETC AND USING YOUR OWN

SENTIMENTS. Thanks to Jenny Dreyer and Bruce Pfirrmann (SUBSTITUE PROGRAM TA) for coordinating the REU program at VIMS. Program funding for the VIMS Research Experience for Undergraduates was made available through a grant awarded from the National Science Foundation (grant # NSF OCE 1062882) to Drs. Linda Schaffner and Rochelle Seitz.

Literature Cited

All publications cited in the text should be presented in a list of references following the text of the manuscript. The list should be arranged alphabetically on the last name of the first author, and chronologically per author. Use a 0.05 indent for hanging lines.

For example:

Jones, H.D., Richards, O.G., Southern, T.A., 1992. Gill dimensions, water pumping and body size in the mussel *Mytilus edulis* I. J. Exp. Mar. Biol. Ecol. 155(2), 213-237.

See the attached pdf on how to format other types of references.

Figures & Tables

These should be manuscript quality. If you are not sure what that entails, ask someone - a mentor, a grad student in your lab, the REU TA. Table legends go above the table; figure legends go below the figure. Legends should start with “**Table 1:**” or “**Figure 1:**” followed immediately by a *detailed description* of the table or figure, such that the reader doesn’t have to refer to the text to understand what you are trying to get at.

I think figures and tables are the most important part of your paper. Create drafts of your figures first - they will tell your story. After your abstract, the figures and tables are usually the next thing a reader will look at.

For now, your figures and tables should go at the very end of your paper. They will be integrated into your text prior to publishing the booklet.