

Writing A Research Proposal

A research proposal is just that: you are proposing to do a particular piece of research, so that the reader can sign off on it and give you funding or permits or encouragement. A good proposal can be as short as one (single-spaced) page, and should not be longer than 2 pages.

Your **research proposal** should include at least the following items and information:

1. The organism and broadly stated question on which you intend to work.
2. A description of why you care about this, and a compelling reason that other people should care as well (writing this now will give you a head start on writing the Introduction of your final paper). Why is this question interesting and important? Frame your research in the context of larger issues, if you can—nobody will fund or be excited about a project that seems mundane or poorly thought out.
3. All of the hypotheses that you can generate, which relate to your question. Convince the reader that you've covered all the possible hypotheses, including the null hypotheses.
4. Predictions that necessarily follow from each of your hypotheses.
5. The methods that you intend to use (site, observation vs. experimental work, the precise methods of observation or experimental design, schedule of research activities). Defend the methods with regard to their simplicity, cost, robustness, and ability to answer your question in the time allotted (that is: during the first eight weeks of Spring quarter; in week 9, assume that you will be conducting statistical analysis and doing the final write-up of your work; in week 10, everyone will present their work to the class).
6. Problems that you can already foresee might get in the way of your ability to do everything according to plan.
7. Any preliminary literature review that you have done should be included, too.

It is extremely unlikely that your research will actually go as you think it will at this point. This will seem counter-intuitive, but you should therefore be very detailed and clear in your plans as outlined in your proposal. It is only with a clear plan in advance that you can know when you have to veer from it, and how that veering will impact other aspects of your plan.

First draft of proposal due: Monday, March 30

Submit to me, via Email, a copy of your proposal. Send me a single .doc file as an Email attachment. Include your last name (or names of all research partners) in three places:

- 1) Beginning of the file name (e.g. "Hamilton & Zuk first draft proposal.doc")
- 2) In the document itself, at the top of the page
- 3) In the subject line of the Email