

Ground Rules for the Discussions, Summaries, and Research Papers

Over the course of the semester, each of you will help lead a discussion about a particular scientific paper we are reading for class. After reading and discussing the paper, you will write a short summary/critique about the paper and you will write a longer research review paper about a specific aspect of the discussion paper.

Questions:

Each person not co-leading a discussion will be required to turn in three typed (or legibly written) questions pertaining to the weeks discussion. Your questions thought be thoughtful and should mostly deal with the concepts or methods. I have been asked if there is such a thing as a stupid question. Yes, there is. If your questions clearly show that you did not read the paper carefully and deliberately, then you will lose points. If all your questions are highly technical in nature (why did they chose that axis scale, why didn't they use darker colors in Figure 3, etc.), you will lose points. By taking the time to write good questions (keep a copy for yourself!), you can ask them in discussion and receive more participation points for the course.

Discussion:

Rather than presenting a formal seminar, two co-leaders will lead a discussion of a particular research paper. Below is timeline of what should happen to conduct an effective discussion. At any stage, feel free to ask me for clarification or to help the co-leaders prepare.

1. Read the paper **well in advance** of your discussion
2. **Meet** with your co-leader and discuss the good and bad things about the paper (methods and ecological principles)
3. Identify and **collect other papers** related to your discussion paper for additional background or contrasting views (you can use these papers for your research review, too)
4. **Meet** again with your co-leader and work on the actual discussion content
5. Generate a list of discussion points and/or questions

At the beginning of the class, the co-leaders will present a brief (10-15 min) summary of the discussion paper. Do not go into exhaustive detail! Next, you will lead a discussion of the paper and topic. You can ask questions of other students, but your questions may be more effective if you introduce each one by giving some background first. For example, if you think that the experiments were in containers that were too small, don't just ask "Were the containers too small?" Instead, discuss how small containers might constrain the swimming of baby sharks and then ask: "Do you think these containers were too small given the size of the fish? Did the swimming of baby sharks really affect the variable under study?" Your discussion points/questions should pertain to the methods and supporting or contrasting evidence regarding the ecology covered in the paper. Make sure to try to highlight contrasting results from other studies, other species, or different ecosystems.

Summary/Critique paper:

The co-leaders will each turn in a written summary of the paper one week after the discussion. **The summary should review and critique only the discussion paper** and provide suggestions for improvement and/or future research. Like the actual discussion, start with a brief summary of the paper (i.e., one paragraph). Then discuss the positive and negative aspects of the methods

and the authors' conclusions. Do not get hung up on minor details (e.g., graphs were hard to read) – focus on the main methods and concepts. You do not need to bring in other studies for the summary. Your summary should include items discussed in class (so co-leaders should take notes!). Your summary should be 2-3 pages long, with 1" margins, double-spaced, and 12 pt. times or times new roman font.

Research paper:

Your paper need not be on the exact topic your discussion paper covers, it might be only a portion of the paper, a broader topic the research addresses, or a related topic. But, the paper you read should somehow be involved in the review (it's less work for you!). Ask Dr. Steinhart if you need help deciding on a topic.

The goal of a review paper is to discuss and synthesize what is known about the ecological question(s). **It is not a critique of any single paper.** Therefore, you should thoroughly explore the literature to find papers related to your topic and provide a synthesis of the topic (you read other papers for the discussion, right?). Do not simply review the contents of each paper without drawing comparisons with other studies. Nothing is more deadly than simply reviewing each study in detail without actually synthesizing material from multiple studies.

Your review paper must have at least five peer-review references. The discussion paper may be the focal paper for the review, **but you must include 4 other peer-review references from journals or scholarly books (NO internet references, agency reports, or textbooks are allowed!).** Having trouble finding other papers? Start with the literature cited section of your discussion paper. You also can look for references in your textbook. You might find a useful paper on the computer in the Ichthyology lab (password: oncorhynchus). Find your papers early, in case you need to order them on interlibrary loan. To make sure you are on the right track, you will be required to turn in a literature cited section for your paper early in the semester (follow proper formatting – see below), although I do not expect you to have fully read the papers at that time.

MAKE SURE TO READ your cited papers. You will turn in a rough draft, have your draft reviewed by me and another student, and turn in a final copy. Your review paper should be 5-8 pages, 1" margins, double-spaced, in 12 pt. times or times new roman font. **Follow TAFS format** for citations and references (unless you have a different format approved by the instructor). The TAFS instructions for authors can be found on my "classes" web page (not the BIOL333 page, the general page for all classes). There also is a document on the classes web page that has general writing tips and common mistakes.

Keep in mind that five references and five pages are MINIMUMS. You won't get an excellent grade by only doing the minimum.