

## LITERATURE REVIEW GUIDELINES

**Written assignment:** Write an in-depth literature-review (15-17 pages; not including the appendices with figures and references), 12pt times new roman font, 1in margins, double spaced) on a subject of your choice in animal behavior. The review should provide an ADAPTIVE argument about your topic and a thoughtful and sophisticated review of background and current knowledge on the topic.

**Presentation assignment:** Present your in-depth literature-review in a PPT presentation (13-15 min, plus 10-15min questions).

### Assignment goals:

- 1) Become fluent in the interpretation of empirical scientific literature.
- 2) Present an argument (a lesson that you want to teach) about the group of empirical studies that you use in your literature review.
- 3) Synthesize a story based on your argument that demonstrates the support (or lack of support) found in the empirical studies that you use in your literature review.

**Grading:** see syllabus.

### The assignment will go through several explicitly iterative revisions:

- 1) Annotated bibliography: Within the first few weeks of class, you will generate a topic and create a short review of 10 primary papers on the subject. I will then briefly meet with you individually (5-10mins) to provide direction on how best to formulate your ideas. You will then be asked to add more citations to this annotated bibliography, and then create your argument.
- 2) Expanded outline: You will turn in your argument, and after some comments have a chance to resubmit. About a week later you will turn in an in-depth outline in paragraph format, and bibliography. I will then meet with you individually for 15 minutes to discuss your progress.
- 3) Two drafts, with peer-review of second (polished) draft: Mid-semester, you will write a typical rough draft that serves as a skeleton for your later writing. Shortly thereafter, you will submit a polished draft (something you would be happy to submit to a non-WC course) and then participate in peer review of your polished draft by two in-class peers. You will receive written comments from each reviewer, but will also spend an entire class-period in conference with your reviewers (and also instructing those who you reviewed)— with the goal that you will share ideas on how to improve each other's paper.
- 4) PowerPoint presentation: Towards the end of the semester, you will give your PPT presentation on your topic. After the presentation, you will receive peer comments on your presentation, and then meet individually with me for 15-30 minutes so that I can provide feedback on your presentation in order to help improve the organization and clarity for the final written version of the paper.

**Note that this final iteration of feedback is often the most valuable,** and I often witness the largest intellectual jump between the PPT presentation and final version of the paper— likely because you will have become so saturated with the material after preparing the PPT presentation that you will be able to then push yourself to reach a higher level of sophistication.

- 5) Final version: Submit final version of paper to me one week after PPT.

## How to craft your literature review:

—The literature review should be comparable in scope and presentation to a review paper published in a scientific journal (see example posted on webpage from the journal *Trends in Ecology and Evolution*).

—No abstract is needed for a review paper.

—Use a minimum of 35 primary article citations, although I won't be surprised if some of you have >50. The review may also contain additional secondary references, including other reviews and books, to help establish the context and scope of your argument.

—Be sure to cite your references in appropriate places in your paper, using the citation style of *Animal Behaviour*. Follow this style for both within-text citations and for the bibliography (at end of a paper). I strongly recommend that you use your Refworks account through the library both to organize the citations (and PDFs) of papers you are working with, and to format your bibliography in the style of *Animal Behaviour*.

—Your figures/tables should be at end of paper in an appendix. Make sure to include figures from studies that make huge strides in the field, or are especially relevant to your argument.

—Formatting:

1) 2-5 paragraphs providing the narrowed-down context for your review and introducing the argument and overarching conceptual theme of your paper. Present your argument in the form of “In this review, I will argue that...”, and UNDERLINE your argument.

2) The “meat” of your literature review can be organized any way that you wish, with sections and subsections. Be sure you avoid the temptation to simply summarize the findings of your source articles and call it a review essay; you do not want to produce a laundry list of what studies have been done in the field. **Your goal for this assignment is to interpret and synthesize the findings of empirical papers, and to address what the findings mean and how they relate to your argument.** This means that you should include those findings that bear directly on your main conceptual point. **Make sure to include necessary details for the reader so they can gain a general understanding of what the researchers did: 1) what they set out to test (hypothesis or question); 2) what they did (a brief description of methodology is generally necessary); 3) what they found (a description of patterns can sometimes be augmented by referring to a figure, or sometime including information on the summary stats, e.g., range or means), 4) what the authors concluded/interpreted; 5) how the interpretation fits with your argument.** Include all these points for many of your studies, especially the ones that help build your argument. You can provide less details on other studies that support what that first study showed, or that build on what that first study showed.

3) A few concluding paragraphs that places the research back in the “big picture”, based on the concepts you mentioned in your opening section. It would also be wise to add some of your personal opinions, including: what you think are limitations to the field, what you think the biggest findings mean for the field, where there remain gaps in understanding, and where you think the research should go in the future.

**Some parting thoughts:**

As I have mentioned in our earlier writing assignments, you should plan to work through **MANY REVISIONS** of this paper before you hand it in. After you have a working draft, you will have to revise, revise, revise. Remember that all writers do this, and it is accepted amongst writers that the best way to improve one's writing is through constant revision— this will ensure that the final story is clear, that it is succinct and precise, and that it reads easily. The paper also needs to be free of grammatical & spelling errors, but this is secondary to the importance of having a clear story and argument that threads throughout the paper.

Note, that the draft that you are submitting for peer-review should be a LATE-STAGE draft; one that is near-final stage, full-length, organized, and well written— this draft should have already been through many revisions before you hand it over to the peer reviewers.

You can take advantage of the free drop-in tutoring provided by the student success (writing center). Also, I have posted an article on the course webpage that contains very sound advice on scientific writing and how to construct an argument. We will discuss the points made by the author in one of our early lab meetings.

Please come talk to me about this assignment!