

Research Project

Stress and Resilience ~ People and Places Fall 2006

We want you to carry out a research project that illuminates issues that matter to you and contributes to the entire group's understanding of the relationships between stress and resilience, between adaptation and destruction, and between positive and harmful change.

You received a handout that listed a number of abstract questions. Over the weekend of the field trip we will have the opportunity to develop a few more — perhaps a total of ten questions. Your first task is to select one (or perhaps two) to serve as your questions for the quarter. By the end of the quarter you and your collaborators probably won't have *answers* to these questions, but you'll have *responses*: ways to think about these questions, examples that illustrate your thinking, analysis, reasoning, and synthesis concerning what matters and why.

In addition to the abstract questions, we are offering you a number of different concrete situations to consider in looking for data — schools, New Orleans/Katrina, Hood Canal, Health and War & Peace. Over the next few weeks the program will take up each of these specific topics, but if one catches your eye, it's your job to start collecting research on it now, even before it is officially part of the syllabus. If none of these is central to your interests, you are certainly welcome to focus your work on your question in another concrete topic area, or you can work more generally across fields.

Doing the research and writing

Under any circumstances that really matter, you wouldn't think of presenting your research without having it reviewed by competent people familiar with the topic. We will mimic that practice.

First, you will consider what you already know that will shape the research — you will write a 1-3 page commentary on the experiences you have had, the news events you have observed, the other research and reading that are your starting point. **Deadline — October 14.**

Second, you will search the TESC library scholarly journals and books for articles and other sources that pertain to your research question. If you don't know how to do that, make an appointment with a reference librarian for help in the next week. From this search process, you will produce an bibliography of citations with a one sentence annotation explaining how that source contributes toward your research objectives. **Deadline — October 25.**

Third, you will meet with others working on the same or related research questions, to share your findings and insights, and to discuss further directions for your research, analysis, and writing. You will meet outside of class *before* October 28 to organize the writing of your paper, as specified below. *Important note*: this will be a finished (not perfect) paper, not a draft, outline, sketch, or progress report. **Deadline — November 8.** This might seem premature, but the purpose here is *not* so we can pass judgment on your work, it's so we (your faculty and peers) can provide useful feedback. When you submit your paper the second time (**Deadline — December 2**), it will be *much* better, and you'll be glad we did it this way — trust us.

At this time you will discuss research methods and strategies with the entire group during class time.

Between **Nov 4 and Dec 2** you and your group will rewrite your paper to incorporate the constructive comments of your reviewers, and the additional insights and approaches that you have developed. At the end of the quarter, we'll get another chance to hear each group speak about their work.

Specifications

You will probably need at least 3000 words to discuss your topic. Presentation is important. Your paper should be neatly typed, double spaced, 12-point type and 2.5 cm (1 inch) margins all around, all but the first page numbered, and stapled.

Title - A title should be short and should accurately describe the content of the paper. Omit words such as "A study of . . .", etc. A good practice is to devise multiple titles before selecting the best one.

Abstract - The abstract should be self-contained and summarize the concepts and conclusions of the work. Limit the abstract to a maximum of 150 words. Write this last, but put it at the beginning of the paper.

Introduction - Set the context of your work, including the general concepts, questions, and relevant published work. Make it clear why this is an interesting or important issue. The introduction should contain a clear statement of the hypotheses or central questions.

Discussion – This is where you explain the issues and develop your analysis, reasoning, and synthesis. Rather than a long section simply labeled “discussion”, you might find it helpful to use subheadings relevant to the topic you’re discussing in each section. This helps the reader keep track of the story, and it helps you keep track of what belongs where. This will be the bulk of your paper.

You should discuss in the text any data that you present in graphs or tables. Explain the important features of your results that will be necessary for interpretation, don't just say "the data are in Table 1."

All graphs, drawings, and diagrams should be labeled as figures (Fig. 1, etc.) and numbered consecutively. Number tables as Table 1, etc. Don't use color or 3-D effects. Headings (above the tables) and figure legends (below the graphs) should explain what you want the reader to see. Cite the source of any data in the heading or legend, e.g. "(from Smith 1992)."

Literature Cited – Document the sources of all ideas and data by citing the authors in the text of your paper, and listed the citations at the end of your paper. Cite your sources as described below. Any material lifted directly from other published work should be placed in quotations in the text, in addition to citing the sources. Keep quotations to the absolute minimum necessary — use them only when it's important to use the original author's own words. Quotations should generally be a sentence or less. Too much quotation makes it look as if you don't really

understand what the authors are saying. Making minor modifications (paraphrasing) simply to avoid quotations is not acceptable, and constitutes plagiarism (see below).

References should cite peer-reviewed research. Books, technical reports, etc., are also acceptable but avoid citing unpublished work or personal communications. Internet/web sources, newspapers, and popular magazines are not acceptable sources. Research functions primarily based on peer-reviewed articles, so relevant information found elsewhere should be tracked to the source.

More help - The Writing Center is there to help you. You can call (360) 867 6420 for an appointment, or check their website: <http://www.evergreen.edu/writingcenter/home.htm>. They like you already, even if they haven't met you.

The Online Writing Center at Purdue University has some useful information:
<http://owl.english.purdue.edu/>

Plagiarism is a serious academic offense and a violation of the Social Contract. It could result in you earning zero credit for the class, and in egregious cases could result in expulsion from the college. If there is any question about what plagiarism is, you should contact the faculty of your class. Also, see the Student Code of Conduct. Not knowing that what you've done is plagiarism doesn't mean it's not plagiarism.

Citation formats

Websites are not acceptable sources for this assignment; don't cite them. Any important statement that you make should be supported by a citation in the text, and the cited sources must be listed in the "Literature Cited" section. You must read all the papers you cite. If you can't get the original paper (our librarians are very clever and happy to help you), and you really need that source, then say something like Janzen 1982, as cited in Augspurger 1994. In that case, the Augspurger paper is listed in the "Literature Cited", but the Janzen paper isn't.

Citations in the text. In the body of your paper, use the format (author year) e.g. (Gepts 2002), (Smith and Jones 1997), or (Dutton et al. 2003) for more than three authors. Also, you might say "Andow (2001) found that...". The period goes outside the parenthesis if the citation is at the end of the sentence. Within the text, your citations should use the authors last name(s), the year, and in the case of books (but not chapters), the page numbers e.g. (Berenbaum 1999, pp. 43-51).

"Literature Cited" is at the end of the paper. List papers you cited, and only those papers. Alphabetize the list by the last name of the authors (use 'sort paragraphs' in MS-Word. Format your citations according to these examples:

Single author journal article

Gepts, P. 2002. A comparison between crop domestication, classical plant breeding, and genetic engineering. *Crop Science* 42: 1780-1790.

Multiple author journal article

Dutton, A., H. Klein, J. Romeis, and F. Bigler. 2003. Prey-mediated effects of *Bacillus thuringiensis* spray on the predator *Chrysoperla carnea* in maize. *Biological Control* 26: 209–215.

Book

Ellstrand, N. C. 2003. *Dangerous liaisons? When cultivated plants mate with their wild relatives*. Johns Hopkins University Press, Baltimore, MD, 268 pp.

Book Chapter

Andow, D. A. 2001. Resisting resistance in Bt corn. pp. 99-124 in *Genetically Engineered Organisms: Assessing Environmental and Human Health Effects*. D. K. Letourneau and B. E. Burrows, Eds. CRC Press. Boca Raton, Florida, USA. 321 pp.

Reports by agencies or organizations

NRC (National Research Council). 1987. Field testing genetically modified organisms: framework for decisions. National Academies Press, Washington, DC, USA. 37 pp.

Conference proceedings

Kapuscinski, A. R., T. Nega, and E. M. Hallerman. 1999. Adaptive biosafety assessment and management regimes for aquatic genetically modified organisms in the environment. pp. 225-251 in *Towards Policies for Conservation and Sustainable Use of Aquatic Genetic Resources*. R. S. V. Pullin, D. M. Bartley, and J. Kooiman, Eds. ICLARM (International Center for Living Aquatic Resources Management, Manila) Conference Proceedings 59, 277 pp.