Instructions for Preparing Your Independent Project Report

This handout provides a description of the paper, and a brief description of the information you should provide in the various sections of the paper. The organization of the paper is adapted from the APA manual, and is identical to that used in your FR/FI paper. You should submit individual independent project papers to me for evaluation. Please consult the APA manual if you have questions concerning list of references or style of writing. I also encourage you to read journal articles relevant to your study. See me if you are having a difficult time finding sources. (And please try to leave journal volumes in the library so that others may use them.

The due date for this paper is Monday, June 6th, by 4:30 pm.

Specific Requirement
A manuscript, arranged as described here and written in APA style is required. The manuscript should include the following: 1) an abstract, 2) an introduction, 3) a methods section, 4) results section and 5) a discussion, and of course, a list of references. My estimate of manuscript length (text only, or sections 2 - 5) is about 5 pages. Length should not exceed 10 pages at maximum. Please stick to your points and be brief. See me if you have questions concerning this.

Title page – you know how to do that by now.

Abstract
The length limit here is no more than one, double-spaced page (i.e., 175 words or less). The abstract should include statements describing the problem, method, results and conclusion. To accomplish this, describe briefly the reason for the experiment, the design used, the subject and procedure employed, and your major results. Lastly, in one or two sentences, explain what your results mean. BE BRIEF. Read examples of abstracts in the Journal of Experimental Psychology: Animal Behavior Processes to gain insight concerning the writing of this section. The abstract is presented on a separate page from the rest of the manuscript, in the front, after the title page.

Introduction
Before writing the introduction, consider the following questions: What is the point of the study? What are the theoretical implications of the study? How does the study relate to previous work in the area? What are the theoretical propositions tested, and how were they derived? You should try to answer questions like these in your introduction in a paragraph or two. The point of the introduction is to give the reader a firm sense of what was done and why it was done. Introduce the problem, and tell me why you think it is interesting/important. Give some background material (i.e., defining experimenter manipulations and typical outcomes), and finish the introduction with a statement or two that describes what you did in the present study. There should be a formal statement of
hypothesis here. Questions to bear in mind in closing the introduction are: what variables did you plan to manipulate, what results did you expect, and why did you expect these results?

Method
A method section is included in scientific manuscripts so that others may replicate exactly your experiment. Thus, it is necessary to be complete, accurate and specific in your writing here. The methods section is divided into three sections so that readers can consult these when specific information is sought. USE YOUR FR/FI REPORT AND BORROW FROM YOURSELF. EVERYONE SHOULD BE ABLE TO GET FULL POINTS FOR MANY OF THESE SECTIONS, IF YOU CONSULT THE FEEDBACK FROM YOUR LAST REPORT.

Subjects
Include as much information about your pigeon as possible; e.g., sex, strain, deprivation level, and living conditions. Remember that background experiences may also be relevant, especially if you are studying a phenomenon for which previous experiments in the lab (schedules of RFT, exposures to colors or line orientations) may be relevant.

Apparatus
Describe your operant conditioning chamber. What was the mechanism for response? What was the reinforcement? How was it delivered? What stimuli did you use? If any measurements are made, use the metric system to state these. Also state how you scheduled contingencies (i.e., time intervals, response rates, critical time in session) and how you collected data

Procedure
In this section, delineate the experimental conditions and define all variables. How did you perform the study? How long did the study take? What was the design of the experiment (training-testing phases, ABAB design, random presentations, presentations in blocks of trials, sessions conducted, order effects). What steps did you take to collect data? Tell me exactly what you did to conduct the experiment. You may leave out trivial or irrelevant steps such as removing the bird from the home cage, weighing and feeding the bird, but any remedial measures taken (shaping, habituation, etc) should be mentioned. Be sure that you adequately define the dependent measures, and all technical terms such as reinforcement (i.e., 3-seconds access to mixed grain).

Results
You may discuss any other data you collected, but objective types of data serve as primary sources from which conclusions may be drawn (i.e., responses/minute, running rates, PRP's). Consider the means of responses in particular phases, mean responses to particular stimuli, DR's or percent corrects over the last 10 trials of training sessions, etc. You do not need to calculate variance, but you should mention how variable the data seem to be. Attempt to
isolate the question you asked in the introduction, and identify the data that answer this question. In addition, explore other possibilities that may have affected the data: Were there any systematic changes in any of the dependent measures as a function of the progression of training/testing? Try to support any qualitative statements (i.e., response rates were higher in condition A than in condition B) with numbers (i.e., means, ranges, etc.) No statistical tests are required here. But you should refer to figures or graphical representations (tables of means, etc.) to support your conclusions concerning the study. Figures are not presented within the text, but are included on separate pages at the end of the manuscript. Refer to the APA manual, to your FR/FI paper, or to me if you are confused about the presentation of figures or the discussion of figures.

Discussion
Your discussion should summarize the basic research findings and restate whether or not the hypothesis (or -es) were confirmed or rejected by this study. Then you have a fairly free license to speculate and draw conclusions. To get you started, I have provided a sample set of questions you could consider: Was this research question significant, original, or important? Was the outcome clearly related to the variables with which the investigation was concerned? What did you learn from this study? Here is your chance to tell me what you think.

References
Please include only references you used in the paper itself, not anything else that you read but chose not to use. For reference style, see the references in Domjan’s book.

Good luck! And remember that you can use lab time to ask me questions about your paper, or to bring in rough drafts of sections for me to read.