Assignment 3

Due: February 29, 2008

Part I: Non-Parametric Analysis

Dataset

The data for this assignment is provided in "assignment3.sav". Ten people were each asked about the foods they like to eat. Specifically, each participant was asked to rate three foods (sushi, burgers, and pizza) on the following scale:

despise		dislike		neutral		like		love
1	2	3	4	5	6	7	8	9

SPSS Hints

All of the non-parametric tests are found under "Analyze $\rightarrow$ Nonparametric Tests". The chart provided in the notes should be sufficient for you to figure out which test will be where. For each test, there should be an "Options" button that will allow you to select output descriptive statistics along with the test.

Questions

1. What is the dependent variable?

    a. What type of data is provided for this variable?

2. What is the independent variable?

    a. How many levels does it have (i.e., how many samples)?

    b. Is this a between-participants or within-participants variable?

3. Perform the appropriate test and post-hocs (if necessary).

    a. What are the results of your analysis (write a paragraph appropriate for publication; be sure to state the results for *all* of the tests you performed)?

Part II: Paper Interpretation

In this part of the assignment, you will interpret and criticise a CHI paper. You are not required to read the entire paper in depth; you should be able to answer the questions by reading only the "Study Methods", "Results", and "Discussion" sections. However, you may find it useful to read the rest of the paper to situate the study in an understandable context.

Paper: http://doi.acm.org/10.1145/1124772.1124818 (pp. 303-307)

Questions

1. List three potential problems with the experimental method, results, and/or discussion (3 total).

2. Create a table (or tables) for all of the cells in the experiment. Insert an extra row and column in each table that you create.

    a. Fill in the table(s) with the mean *completion time* for each cell (provide exact values wherever possible).

    b. Fill in the extra rows and columns with the means for each level of each factor. If multiple tables are necessary, fill in the mean for the entire table in the last row and column.

    c. Indicate the grand mean, if possible.

    d. Which of the main effects were significant?

    e. Which of the interactions were significant?

    f. Were pairwise post-hoc tests performed when appropriate?

3. If you were to analyse the user preference and ease of use data, what test(s) would you use?