SPPA 6750 Clinical Research Methodology

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Project 2

1. To do this project you must have access to Microsoft Excel. If you don't have Excel on your own computer, it is loaded on all the computers in the SPPA student computer lab. Within Excel, you must also have installed the "Analysis ToolPak". To do this:

    Excel 2003: click Tools, Add-Ins, then check Analysis ToolPak and click OK.

    Excel 2007/2010: click File, Options, Add-Ins, then click Analysis ToolPak and click OK.

    Mac versions prior to 2008: click Tools, Add-Ins, then check Analysis ToolPak and click OK.

    Mac versions since 2008: you must install StatPlus:mac LE, which you can download free from http://www.analystsoft.com/en/products/statplusmacle/.

2. Create a spreadsheet document in Excel. Enter into three columns the following data:

Participant	Group 1	Group 2	Group 3
SUBJ01	28	17	40
SUBJ02	22	28	26
SUBJ03	25	26	26
SUBJ04	24	16	21
SUBJ05	26	20	43
SUBJ06	27	23	19
SUBJ07	22	19	38
SUBJ08	27	28	20
SUBJ09	27	21	21
SUBJ10	27	16	27
SUBJ11	16	15	18
SUBJ12	17	21	44
SUBJ13	28	15	20
SUBJ14	19	24	20
SUBJ15	24	16	18
SUBJ16	15	25	24
SUBJ17	19	21	26
SUBJ18	23	27	43
SUBJ19	16	15	40
SUBJ20	20	23	32

3. Use the top row (Row 1) to label your columns with the group names. Use the leftmost column (Column A) to label your participants by number.

4. Use the Data Analysis Tools (click Tools, Data Analysis) to produce each of the following analyses in a separate, labeled worksheet:

    - Descriptive Statistics (summary statistics, 95% confidence interval)

    - Histogram of Group 1 data (chart the output, making the chart's endpoints the minimum and maximum values)

    - T-test for correlated (paired) samples of Group 1 and Group 2 data

    - Single factor ANOVA of Group 1, Group 2, and Group 3 data

    - Pearson correlation of Group 1, Group 2, and Group 3 data

5. Use the Data Analysis Tools to create a count of how all three groups' scores distribute into low (15-24), medium (25-34), and high (35-44) groups. Then use the Insert/Chart menu option to create a pie chart showing this distribution.

6. In a separate worksheet enter the following data:

	Men	Women
Agree	58	35
Neutral	11	25
Disagree	10	23

7. In the cells below the response data, calculate the expected frequencies corresponding to each observed frequency. To do this, enter =SUM(column range)*SUM(row range)/SUM(range of all cells).

8. Use the Insert/Function menu option run a CHITEST analysis of the actual range and expected range.

9. Email me (steven.long@marquette.edu) your completed Excel file as an attachment.