Chapter 13 and 14 (41pts)

For this assignment you will get the opportunity to do a regular two way ANOVA and then do a two way ANOVA with a covariate. I will not have you do a three way ANOVA for this assignment.

The variables for this assignment are:

Gender: Female, Male

Problem: Goal disruptive, relational break, illness, catastrophic

Tothelp: a measure of combined help, quantity and quality, measured as a scale variable.

Assume for this data that the research question is: What is the effect of gender and problem on the total help a person receives

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| 1. Write a research hypothesis for each of the main effects AND for the interaction (6pts) |  |

2. Run descriptive statistics for tothelp and gender and paste the tables below. HINT: you must split the file in order to get descriptives for both male and female. (6pts)

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| 3. Looking at your tables, are the data normally distributed and how do you know this? (4pts) |  |

4. Run descriptive statistics for tothelp and problem and paste the tables below: HINT: you must split the file in order to get descriptvies for each of the problems (6pts)

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| 5. Are the data for each problem normally distributed and how do you know this? (3pts) |  |

6. Run a two way ANOVA using the following variables, paste the tables and the plot below (6pts)

Dependent: tothelp

Independent variable Gender and problem

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| 7. Look at the test of between subjects effects and write the results of the study (see my slides on how to do this). (4pts) |  |

8. Develop a two way ANOVA table using the example found on Canvas (4pts)

For this next question you will add a covariate to the study. Remember that a covariate is a variable that is related to the dependent variable and by adding it as a covariate you are in essence taking it out of the number crunching of statistics and removing its influence on the overall effect!

9. Run a two way ANOVA with the following variables and paste the tables and the plot below (4pts)

Dependent: thelplnz

Independent variables: gender, problem

Covariate: tqualitz

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| 10. Write the results of the study of the study (4pts) |  |