Assignment 6

1. Exercise 8.1 An exercise advocate wants to determine the effect that walking rigorously has on weight loss. The researcher recruits participants to engage in a weeklong study. The researcher instructs participants to take a brisk walk as many days of the week as possible for as long as they can. Participants will record the following data: weight prior to engaging in the walking regimen, the amount of time walked each day, and their weight at the end of the week. Participants will submit their data to the researcher at the end of the week. The researcher will preprocess the data to derive the total number of hours walked (walkhrs) and the change in weight for each participant (wtloss = weight at the end of the week − weight at the beginning of the week). **Data set: Ch 08 - Exercise 01A.sav** Codebook Variable: walkhrs Definition: Total hours walked in a week Type: Continuous Variable: wtloss Definition: Total weight loss in a week Type: Continuous NOTE: In Data Set A, record 3, notice that the weight loss (wtloss) is −1.00; this indicates that the participant gained 1 pound. Data Set B, record 16, also signifies a half-pound weight gain (wtloss = −0.50) for that participant.

a. Write the hypotheses.

b. Run the criteria of the pretest checklist (normality [for both variables], linearity, homoscedasticity) and discuss your findings. Paste findings

c. Run the bivariate correlation, scatterplot with regression line, and descriptive statistics for both variables and document your findings (r and Sig. [p value], ns, means, standard deviations) and hypothesis resolution. Paste findings

d. Write an abstract up to 200 words detailing a summary of the study, the bivariate correlation, hypothesis resolution, and implications of your findings.

2. Exercise 8.4 A political scientist wants to find out if there is a correlation between listening to a newscast and an individual’s mood. This researcher recruits a group of participants and has them listen to a newscast that was recorded earlier that morning. Participants are instructed to listen for as long as they want; when they are done listening, the researcher writes down the listening duration and then asks each participant to complete the Acme Mood Report (AMR), a self-administered instrument that renders a score between 0 and 100 (0 = very bad mood, 100 = very good mood**). Data set: Ch 08 - Exercise 04A.sav** Codebook Variable: minnews Definition: Number of minutes of news listened to Type: Continuous Variable: amr Definition: Acme Mood Report score Type: Continuous (0 = very bad mood, 100 = very good mood)

a. Write the hypotheses.

b. Run the criteria of the pretest checklist (normality [for both variables], linearity, homoscedasticity) and discuss your findings. Paste the SPSS findings.

c. Run the bivariate correlation, scatterplot with regression line, and descriptive statistics for both variables and document your findings (r and Sig. [p value], ns, means, standard deviations) and hypothesis resolution. Paste the results.

d. Write an abstract up to 200 words detailing a summary of the study, the bivariate correlation, hypothesis resolution, and implications of your findings.

3. Exercise 8.6 A dietician wants to discover if there is a correlation between age and number of meals eaten outside the home. The dietician recruits participants and administers a two-question survey: (a) “How old are you?” and (b) “How many times do you eat out (meals not eaten at home) in an average month?” **Data set: Ch 08 - Exercise 06A.sav** Codebook Variable: age Definition: Age of participant Type: Continuous Variable: mealsout Definition: Number of means out participant eats per month Type: Continuous Write the hypotheses.

a. Run the criteria of the pretest checklist (normality [for both variables], linearity, homoscedasticity) and discuss your findings. Paste the results.

b. Run the bivariate correlation, scatterplot with regression line, and descriptive statistics for both variables and document your findings (r and Sig. [p value], ns, means, standard deviations) and hypothesis resolution. Paste the results.

c. Write an abstract up to 200 words detailing a summary of the study, the bivariate correlation, hypothesis resolution, and implications of your findings.

4. Exercise 8.8 A sociologist has learned from a prior study that there is a strong positive correlation between time spent playing a video game and the score the player earns on that game (practice makes perfect). Since achieving such proficiency is time-consuming, this sociologist expects that there may be a (negative) correlation between game score and overall academic performance (grade: 0 to 100). To determine if there is such an inverse correlation, the sociologist recruits a group of participants to play a popular video game for 15 minutes, at which time the researcher records the score. Participants will also be asked to provide a copy of their most recent transcript. **Data set: Ch 08 - Exercise 08A.sav** Codebook Variable: score Definition: Score on video game Type: Continuous Variable: grade Definition: Overall academic grade Type: Continuous (0 to 100)

a. Write the hypotheses.

b. Run the criteria of the pretest checklist (normality [for both variables], linearity, homoscedasticity) and discuss your findings. Paste your findings.

c. Run the bivariate correlation, scatterplot with regression line, and descriptive statistics for both variables and document your findings (r and Sig. [p value], ns, means, standard deviations) and hypothesis resolution. Paste your findings.

d. Write an abstract up to 200 words detailing a summary of the study, the bivariate correlation, hypothesis resolution, and implications of your findings.

5. Exercise 8.10 Ariel and Dusty want to determine how similar their movie preferences are. They independently rank the 13 movie categories with their favorite at the top**. Data set: Ch 08 - Exercise 10A.sav** Variable: ariel Definition: Ariel’s movie type preference Type: Categorical (1 = Action/Adventure, 2 = Animation, 3 = Comedy, 4 = Cult Movie, 5 = Documentary, 6 = Fantasy, 7 = Film Noir, 8 = Horror, 9 = Romantic, 10 = Sci-Fi, 11 = Spy, 12 = Western, 13 = Zombies) Variable: dusty Definition: Dusty’s movie type preference Type: Categorical (1 = Action/Adventure, 2 = Animation, 3 = Comedy, 4 = Cult Movie, 5 = Documentary, 6 = Fantasy, 7 = Film Noir, 8 = Horror, 9 = Romantic, 10 = Sci-Fi, 11 = Spy, 12 = Western, 13 = Zombies)

a. Write the hypotheses.

b. Verify the pretest checklist (both independently ranking the same set of items). Paste the findings.

c. Run the bivariate correlation for Spearman’s rho, and document your findings (Spearman’s rho and Sig. [p value]) and hypothesis resolution. Paste the findings.

d. Write an abstract up to 200 words detailing a summary of the study, the bivariate correlation, hypothesis resolution, and implications of your findings.