Assignment 5: Chapter 7

1.Exercise 7.1 The Acme Company produces Monster Spray, a pleasant fragrance parents can use to help relax children who are afraid of nighttime monsters. A group of parents who use the spray has been recruited to find out how effective the spray is in calming monster-anxious children at bedtime. Prior to spraying, the parent will ask the child to rate his or her anxiety on a 1 to 10 scale (1 = not afraid at all, 10 = very afraid); the parent will ask the same anxiety scale question after spraying. The parent will record both the before and after (spraying) numbers. **Data set: Ch 07 - Exercise 01A.sav** Codebook Variable: ID Definition: Participant’s first name Type: Alphanumeric Variable: pretest Definition: Anxiety level before to spraying Type: Continuous (1–10) Variable: posttest Definition: Anxiety level after spraying Type: Continuous (1–10)

a. Write the hypotheses.

b. Run the criteria of the pretest checklist (normality for posttest − pretest) and discuss your findings.

c. Run the paired t test and document your findings (means and significance [p value], hypothesis resolution). Paste the results.

d. Write an abstract up to 200 words detailing a summary of the study, the paired t test results, hypothesis resolution, and implications of your findings.

2. Exercise 7.6 The administrators of a school want to determine if issuing students laptop computers will enhance their grades. At the beginning of the academic term, each student in a class was issued a laptop computer. At the end of the term, the overall academic performance score (0–100) for each student was gathered at two time points: the overall grade score for the term before issuing the laptop and the current overall grade score. **Data set: Ch 07 - Exercise 06A.sav** Codebook Variable: ID Definition: Student ID Type: Alphanumeric Variable: pretest Definition: Mean academic score from first term Type: Continuous (0–100) Variable: posttest Definition: Mean academic score from second term Type: Continuous (0–100)

a. Write the hypotheses.

b. Run the criteria of the pretest checklist (normality for posttest − pretest) and discuss your findings.

c. Run the paired t test and document your findings (means and significance [p value], hypothesis resolution). Paste the results.

d. Write an abstract up to 200 words detailing a summary of the study, the paired t test results, hypothesis resolution, and implications of your findings.

3. Exercise 7.9 In an effort to discover ways to boost morale, an investigator wants to assess the effects chocolate has on attitude. The researcher recruits a group of participants and has them complete the Acme Attitude Survey (AAS), which renders a score ranging from 0 to 100 (0 = very bad attitude, 100 = very good attitude). After gathering the (pre)tests, the researcher serves each participant a generous slice of chocolate fudge cake. One hour later, the researcher administers the AAS a second time. **Data set: Ch 07 - Exercise 09A.sav** Codebook Variable: ID Definition: Participant ID Type: Alphanumeric Variable: pretest Definition: Baseline attitude (AAS score) Type: Continuous (0–100) Variable: posttest Definition: Attitude an hour after eating cake (AAS score) Type: Continuous (0–100)

a. Write the hypotheses.

b. Run the criteria of the pretest checklist (normality for posttest − pretest) paste and discuss your findings.

c. Run the paired t test and document your findings (means and significance [p value], hypothesis resolution).

d. Write an abstract up to 200 words detailing a summary of the study, the paired t test results, hypothesis resolution, and implications of your findings.

4. Exercise 7.10 A political consultant wants to judge the impact of a speech. The consultant recruits a group of registered voters and asks them to indicate their voting intentions on a 1-to-7 scale (1 = absolutely will not vote for this candidate, 7 = absolutely will vote for this candidate). Next, the candidate delivers the speech. Finally, the consultant readministers the one-question survey to each participant. **Data set: Ch 07 - Exercise 10A.sav** Codebook Variable: ID Definition: Participant ID Type: Alphanumeric Variable: pretest Definition: Voter’s score before speech Type: Continuous (1 = absolutely will not vote for candidate, 7 = absolutely will vote for candidate) Variable: posttest Definition: Voter’s score after speech Type: Continuous (1 = absolutely will not vote for candidate, 7 = absolutely will vote for candidate)

a. Write the hypotheses.

b. Run the criteria of the pretest checklist (normality for posttest − pretest) and discuss your findings. c. Run the paired t test and document your findings (means and significance [p value], hypothesis resolution). Paste the results.

d. Write an abstract up to 200 words detailing a summary of the study, the paired t test results, hypothesis resolution, and implications of your findings.