ACTIVITY 3
PART C – Tuesday, July 3
Week 3, Tuesday

Due: Monday, July 9

Instructions: A hard copy of the final version of Activity #3 is due Monday, July 9 (Week 4). You will be given the activity in parts, but it is your responsibility to keep track of all questions on one master document for each respective activity.

Answer Q1-Q5 using Hypothesis 1 from the midterm dataset (user: pls205; pass: !pls205*).

Hypothesis 1: There is a difference between a) hispanic respondents and b) non-hispanic respondents (info_hisp) on their thermometer scores for Donald Trump (score_trump).

(1) What is your **independent variable**?
    (a) What is the **level of measurement** for this variable?
    (b) Report the value(s) for the most appropriate measure of **central tendency.**
    (c) Report the value(s) for **variability.**
    (d) Draw the most appropriate graph for this variable.
(2) What is **dependent variable**?
    (a) What is the **level of measurement** for this variable?
    (b) Report the value(s) for the most appropriate measure of **central tendency.**
    (c) Report the value(s) for **variability.**
    (d) Draw the most appropriate graph for this variable.
(3) Discuss a possible **causal mechanism** for this hypothesis. *Explain your logic.*
(4) State the **null hypothesis**.
(5) What is the appropriate **test statistic** you should calculate for this hypothesis?
    (a) What is the **mean** for white respondents on their thermometer score for Trump?
    (b) What is the **mean** for non-white respondents on their thermometer score for Trump?
    (c) What is the value of the **test statistic** you calculated?
    (d) What are the **degrees of freedom** for this test?
    (e) What is this test's **significance value**?
    (f) *Interpret.* Is there a significant difference between white respondents and non-white respondents on how they feel about Trump? Is this result surprising?

Answer the following questions using the midterm dataset. You'll have to perform t-tests for each of these questions.

(6) Evaluate the hypothesis: There is a difference between respondents *with a 4-year degree* and respondents with a *post-graduate education* (info_educ) on their feelings about police (score_police).
    (a) Copy and paste the "Independent Samples Test" output box onto your document.
    (b) What is the t-value for this test statistic?
    (c) What is the probability that this relationship is due to chance?
    (d) Do we accept or reject the hypothesis?

(7) Evaluate the hypothesis: There is a difference between *black* and *non-black* (info_black) on how much they support Barack Obama (score_obama).
    (a) Copy and paste the "Independent Samples Test" output box onto your document.
    (b) What is the t-value for this test statistic?
    (c) What is the probability that this relationship is due to chance?
    (d) Do we accept or reject the hypothesis?

(8) Evaluate the hypothesis: There is a difference between *Asians* and *other races* (info_asian) on their levels of political knowledge (knowledgescore).
    (a) Copy and paste the "Independent Samples Test" output box onto your document.
    (b) What is the t-value for this test statistic?
    (c) What is the probability that this relationship is due to chance?
    (d) Do we accept or reject the hypothesis?

(9) Evaluate the hypothesis: There is a difference between people who feel *no white guilt* and people who feel *a great deal of white guilt* (white_guilt) on their thermometer score for Donald Trump (score_trump). Answer the following questions:
    (a) Copy and paste the "Independent Samples Test" output box onto your document.
    (b) What is the t-value for this test statistic?
    (c) What is the probability that this relationship is due to chance?
    (d) Do we accept or reject the hypothesis?

(10) *Non-SPSS question.* After performing several t-tests for unnamed hypotheses, you receive four different significance values listed below. For A-D, convert these significance values to a percentage and write out the complete interpretation of the hypothesis by explaining the probability the relationship is due to chance.
    (a) .002
    (b) .981
    (c) .051
    (d) .005
    (e) .003