Assignment #1
Due 10/07/2020 (at 5pm to Canvas)

Getting started –

For this assignment, you will need to use the output file (named Assignment 1 Fall 2020) provided on Canvas. I have already conducted the analyses, so all you will need to do is **interpret the output file** to answer each of the research questions in this assignment.

Requirements –

1. Read and understand the overview of the data study (found on page 4 of this document).
2. Answer 10 research questions (listed on pages 4 - 5).
3. Provide a conclusion based on your findings. In this section, **rather than restating your findings, build upon them** (page 5)**.**
4. Answer four questions that assess your understanding of the research process (page 5).

Methods –

As provided in the output, you will need to report the descriptive statistics for the sample description, t-tests, or ANOVAs to answer all research questions. Post hoc and interactions are NOT provided in the output file, thus, there is **no need to look or speak to interactions nor post-hoc analyses.** However, when appropriate, **you should describe mean differences as they relate to the research question** (e.g. Were males or females' means higher?)

Example Write Ups –

I have provided several example write ups of the results at the end of page two and followed on page 3. These are meant to guide you so adjust according to this assignment's study context.

Format –

You will need to answer each research question in written form as shown in the example write-ups (pages 2 and 3)
There is no need for tables, charts, or figures.

Please submit using ONLY PDF or Word documents. Other formats, like Apple pages, will NOT be accepted. Canvas has trouble with other formats and your submission will not open properly if other formats are used.

Rounding Numbers –

- Round percentages to the nearest whole number (i.e., 12.23% should be 12%).
- For all other numbers (means, standard deviations, t-score, F-value, p-value, etc.), round to the nearest two decimal points (i.e., M = 4.5566721 should be M = 4.56)

    *** *Please note that the common method of rounding is to make a number of 5 or above go up, and a number of 4 or less go down. For example, if your number is 3.145 then your rounded number would be 3.15, if your number is 3.144 then your rounded number would be 3.14.*

Tips on answering RQs 2-10 –

- Indicate whether the difference is significant or not (report p-value)
- Include the t-score or F-value (depending on the statistical test)
- Include means and standard deviation values for all groups of interest per RQ

EXAMPLE WRITE-UPS

Example of Descriptive Statistics Write-Up –
Sample

A total of 247 U.S. students participated in this study. Fifty-nine percent of them were female and the average age within the sample was 22 years old (SD = 9.66). With regard to ethnicity, 80% were Caucasian, 7% African American, 5% Asian, 5% Hispanic, and 4% indicated "other." Ten percent of the respondents earned a high school degree or equivalent, 37% had some college, 4% completed a two-year degree, 38% were college graduates, and 11% completed a graduate degree.

Example of t-test Write-Up –
Results

Answering RQ 1, the independent sample t-test indicates there was a significant likeability difference by gender, $t = 17.45$, $p < .05$. From the results, female (M = 1.00; SD=0.08) influencers had higher likeability rates than male influencers (M =.26; SD = 0.21).

Example of ANOVA Write-Up –
Results

Regarding RQ 2, an analysis of variance (ANOVA) found a significant result for context perception, $F= 42.26$, $p < .05$. Here, the data demonstrated that participants assigned in the positive context reported higher perceived positiveness ($M = 4.96$; $SD = 1.80$) in comparison to the participants in the negative context ($M = 2.79$; $SD = 0.99$) as well as the control condition ($M = 4.30$; $SD = 2.12$).

Conclusions Based on Findings –

In addition to the results write-up (data write-up), you should include a summary paragraph of the findings (i.e., written in common language). This summary can be broad or very specific – your call! You should describe your finding **AND** discuss trends in the data that practitioners should consider when making advertising decisions (based on these data). Your practitioner recommendations should be specific to trends in the data *but do not require you to restate data already covered when answering the research questions.*

STUDY & DATA INFORMATION OVERVIEW

Assignment 1 is based on an experimental design in which a sample of students were randomly exposed to Instagram influencers who varied in their amount of followers (celebrity: 1M+, macro: 500K-1M, middle: 100k-499k, micro: 1K-99,999) and the industry in which they operated (fashion, travel, fitness, and news). Participants were exposed to Instagram accounts of these influencers and then were asked to complete an online survey. The survey asked participants some basic demographic questions (i.e., age, gender, ethnicity, and class rank) and a set of variables including their perceptions of the influencers' likeability, trustworthiness (when sponsored by brands), credibility (in terms of expertise), and authenticity. Ultimately, practitioners want to understand whether it is a good idea to invest in sponsoring an influencer.

For all comparisons, assume equal variance (t-test)
Use α = 0.05

PART I

Research Questions

RQ1: What is the demographic make-up (i.e., age, gender, ethnicity, and class rank) of the study participants? For this research question make sure you include all relevant descriptive statistics. This should ONLY be a written paragraph (no charts or figures).

RQ2: Is there a difference between participants' gender and influencer likeability?

RQ3: Do male participants significantly differ from female participants on perceived trustworthiness?

RQ4: Is there a significant gender difference for influencer credibility?

RQ5: Do perceptions of influencer authenticity significantly differ between male and female participants?

RQ6: Is there a significant difference in influencer likeability based on the influencers' industry in which they operate?

RQ7: Does the participants' perceived influencer trustworthiness significantly differ by influencer industry?

RQ8: Does influencer credibility significantly differ by industry?

RQ9: Does perceived authenticity significantly differ among the industries influencers operate in?

RQ10: Is there a significant difference for likeability, trustworthiness, credibility and authenticity perceptions among the influencer "follower" categories (number of follower range)? **For this research question you should treat each "follower range" as a unique group for comparison.**

PART II

Conclusion

Describe your finding AND discuss trends in the data that practitioners should consider when making an advertising decision (based on these data). Remember, your practitioner recommendations should be specific to trends in the data but do not require your restate data already covered when answering the research questions.

PART III

Answer the following questions:

1. Why did the researcher run a t-test to answer RQs 2 to 5 and an ANOVA to answer RQs 6 to 10?

2. What are the levels of measurement for the following variables?
- Gender
- Class rank
- Influencer category
- Likeability

3. What tells us whether differences in means are statistically significant?

4. What does a p = 0.84 mean if the researcher sets an alpha of 10%?

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PART I (81 pts)
- RQ1 (8 pts)
    - Include all relevant statistics for gender, age, class rank, and ethnicity (2 pts each)
- RQs 2 - 9 (8 pts each)
    - Report the appropriate statistical test (2 pts)
    - Report relevant statistics and information (4 pts)
    - Report and interpret p-value (2 pts)
- RQ 10 (9 pts)
    - Report the appropriate statistical test (2 pts)
    - Report relevant statistics and information (5 pts)
    - Report and interpret p-value (2 pts)

PART II (15 pts)
- Speak to the relationships observed in RQs 2-10 (5 pts)
- Provide insights and conclusions based on the inferential tests (5 pts)
- Provide recommendations for practitioners (5 pts)

PART III (4 pts)
- Answer each question correctly
    - Question 1, two parts (0.5 pts per part = 1 pts)
    - Question 2, four variables (0.25 per variable = 1 pts)
    - Question 3 (1 pts)
    - Question 4 (1 pts)

NOTE
- Each time a student fails to follow instructions, 2 points will be taken off of the overall assignment. For example, if you include more than two decimal places on means and SDs, and you also did not round percentages to whole numbers, you will be taken 4 points off.