**Data Assignment (DA) Guide: Multiple Regression (Spring 2019)**

The ultimate goal of the PSYCH308 Statistics sequence is to prepare you to conduct independent research and report relevant findings.

As such, Data Assignments (DAs) for Multiple Regression will be different than those you previously submitted for ANOVA. For each DA, you will analyze an assigned data set and report findings aligned to a given prompt. The ***general***template is meant to support your completion of each DA.

This guide details the appropriate content, point valuations, and the approximated length of each section. You should approach each DA with the goal of being concise while fully addressing the prompts with statistical evidence, appropriate language, and graduate-level writing quality. *Any questions regarding prompts, expectations, or formatting should be asked early and often.*

It is expected that DA’s follow appropriate APA formatting as detailed in the most recent manual edition. As such, it’s **highly recommended that you obtain a copy of the following manual for reference**:

|  |  |
| --- | --- |
|  | American Psychological Association. (2009). *APA Publication Manual, Sixth Edition*. Washington, DC: American Psychological Association. |

**Title Page** (APA format)

* Include relevant information: running head, page number(s), appropriate title, name, and course name.

**Introduction and Methods Section** (1 pts; 1-2 paragraphs maximum)

* Explain (i.e., recapitulate in *your own words*) the purpose of the research. What are you trying to figure out and why?
* Explain the source of the data, number of participants, number of variables, names of variables, measures, and your planned data analyses.

**Results Section** (3 pts; length approximated by the level of data analysis required)

* Include relevant steps discussed in class via demos or what will be necessary to address the prompt.
  + **Data Cleaning:** As necessary,include checking for missing data, steps used to address missing data, etc.
  + **Assumption Checks:** Check for assumptions as appropriate as noted in class; *may* include: normality (skew, kurtosis), univariate and multivariate normality, etc. Include all other assumptions discussed in class and, if necessary, steps used to address violations.
  + **Results:** Include relevant statistics, such as correlations, model statistics, unstandardized and standardized coefficients, Sobel test, confidence intervals, etc. *as appropriate*. When appropriate, compare models using a chi-square difference test and note *R2* change.
* Describe and report any other analyses asked in the DA prompt, as needed.
* **Attach annotated R output to your assignment as an appendix**.

**Discussion** (2 pts; 2-3 paragraphs maximum)

* What is the main takeaway of your finding(s)?
* What do your data mean theoretically or practically (as it relates to the prompt in the DA)?
* How do your statistical analyses support your theoretical conclusions?
  + This is *does not* include reporting statistics but interpreting what they mean with regard to your conclusions. Do they support? If so, strongly/weakly? In what way – significant models, but some predictors are not significant? Consider the full picture here and how the stats align with design and theory.
* Are there any limitations? Future directions?
  + This does not need to be a laundry list of things, but practical steps for future research – inclusion of other predictors, inclusion of other theories, potential practical implications (e.g., interventions), generalization(s), etc.

**Tables and Figures** (2 pts)

* Create tables in APA format using R (preferably; Word or other programs are okay only if they satisfy APA requirements).
  + The *default* tables produced in R **are *not* APA style!** Adding table borders to make it pseudo-APA style **does not make it into an appropriate APA table**!
* **Include the following tables:**
  + Descriptive statistics in APA style (mean, SD, skew, kurtosis, etc.).
  + Correlation table.
  + Regression table (***note:*** hierarchical models should be reported in one table).
* Tables should come after your Discussion section with ***one*** ***table/figure per page*** with appropriate header, title, and note (if necessary).

**APA formatting** (2 pts)

* As noted, APA formatting is a necessary and an important component of these assignments. Refer and use the manual as appropriate to complete the assignment (including how to create and reference tables and figures). Points will be deducted for missing components and errors.
  + As a note, please check the following as these are basic components of an APA paper:
    - Font size, margins, appropriate level headers, typographical emphasis, punctuation, citations (as appropriate), tables/figures/appendix, and notation for statistics.