**Research Article Review 3**

The purpose of the research article review is for you to demonstrate what you have learned in the course. By the end of the semester, you will have completed a detailed article review. The third article review will generally look at the results section of a published article. A journal article will be assigned, and you will be asked to respond to several questions (below). You will want to read the abstract and the methods section to gain an understanding of the research question before reading the results section. Use what you have learned in your readings and in class to answer the questions. The due date for the article review is July 25th by the end of the day.

1. Identify a dependent variable (just one) in the study

a. Is the variable nominal, ordinal, interval, or ratio?

b. What can you tell about the normality of the variable’s distribution?

c. What measure of central tendency best describes the variable?

d. What measure of variability best describes the variable?

2. Identify an independent variable (just one) in the study

a. Is the variable nominal, ordinal, interval, or ratio?

b. What can you tell about the normality of the variable’s distribution?

c. What measure of central tendency best describes the variable?

d. What measure of variability best describes the variable?

3. What is one of the null hypotheses for the study?

a. What is one of the alternative hypotheses for the study?

4. What type of statistical test is being used (t-test, ANOVA model or regression model)?

5. IF *t-*test or ANOVA design, answer the following questions.

a. Identify the type of ANOVA (*t*-test, ANOVA, ANCOVA, MANOVA, etc.)

b. How many independent variables are there?

c. How many levels are in each independent variable?

d. What was the omnibus test statistic value (if more than one, just pick one)? Associated *p*-value?

e. How many independent statistical tests were conducted? Assuming an alpha of 0.05, what would be the corrected alpha to account for alpha inflation?

f. Was the statistical decision to reject or fail to reject the null hypothesis? Briefly explain.

g. Were post-hoc tests completed? If so, what type of post-hoc test and what were the findings?

h. Was the assumption of equal variance met? If so, what was the findings?

i. Was the normality assumption met? Briefly explain how you know.

j. Was the assumption of independence of observations met? Briefly explain how you know.

k. IF a repeated measures ANOVA, was the assumption of dependency of populations met? Briefly explain how you know.

l. IF there were two or more independent variables, was there an interaction among the predictors? If yes, do the authors interpret the main effects?

m. IF an MANOVA model, which multivariate test was used? Explain if this test was most appropriate.

n. IF an MANOVA model, was the relationship between the dependent variables accounted for (e.g., descriptive discriminant analysis)?

o. Was an effect size reported? If so, was it small, moderate, or large? How is the effect size different from the hypothesis test? Interpret the effect size.

5. IF regression, answer the following questions.

a. Identify the type of regression (simple linear, multiple, logistic, etc.).

b. Was the method of the regression enter, forward, step-wise, hierarchical, manual, etc.?

c. How many independent variables (include covariates) are there?

d. Explain if there is any indication that the independent variables are correlated with each other (multicollinearity).

e. Are standardized or unstandardized values reported for the slopes? Briefly explain how you know.

f. Provide an interpretation for one of the slope values.

g. Is a constant reported? If so, provide an interpretation for the constant.

h. Is the SEE (sometimes SEM) reported? If so, provide an interpretation.

i. How many independent statistical tests were conducted? Assuming an alpha of 0.05, what would be the corrected alpha to account for alpha inflation?

j. Was the statistical decision to reject or fail to reject the null hypothesis? Briefly explain.

k. If an independent variable was nominal, were post-hoc tests completed? If so, what type of post-hoc test and what were the findings?

l. Was the normality assumption met? Briefly explain how you know.

m. Was the assumption of independence of observations met? Briefly explain how you know.

n. Was an effect size reported? If so, was it small, moderate, or large? How is the effect size different from the hypothesis test?

6. Were any correlations reported? If so, what type of correlations (e.g., Pearson, biserial, Spearman, etc.)?

7. In general, what were the overall findings from the results?

8. Provide an overall evaluation for the results section. Provide a grade on a 100 point scale.