Final Study Guide

JP

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What You Need to Know

Assumptions of all tests

Differences between correlation and regression

Interpretation of unstandardized regression coefficients

Know what standardized regression coefficients represent in a simple linear regression

Know the difference between a simple linear regression and a multiple linear regression

What is the intercept in a linear regression

Know the correct linear regression equation

Differences between actual scores and predicted scores

Know what residuals are in a linear regression

Know what parts of the Sum of Squares in ANOVA framework are similar to the Sum of Squres in Regression Framework

Know how well your regression line fits the data

Similarities and differences between R Squared and Eta Squared

Know what the F statistic measures (ANOVA and Regression)

Know about the test statistics for both correlation and regression

Differences between standardized and unstandardized regression coefficients

Know the assumptions of regression, what they mean, and how to diagnose them

- Linearity
- Outliers
- Homoscedasticity
- Independence
- Normality
- Sample Size

Know how people address for outliers

Know differences in types of residuals you can get from SPSS

Know appropriate sample size for (multiple) linear regression

Understand what controlling/adjusting for

Differences in types of multiple regression

- Sequential
- Standard
- Automated

Model Comparisons

Multicollinearity, Variance Inflation Factor, Tolerance

Interpretation of coefficients (simple and multiple linear regression) with continuous variables, categorical variables, or both

Types of relationships

Cross-production deviation

Variance

Covariance

Know calculations for covariance

know what covariance means and the direction

Standardization of covariance

Correlation

Know Pearson's Correlation Coefficient, Spearman's Correlation Coefficient, and Kendall's Tau and differences between them

Know strengths of correlation coefficients

Types of relationships based on correlation coefficient

Differences between bivariate, zero-order, and partial correlation

Test statistic for correlation

Hypotheses for all tests (ANOVA [one-way, two-way], repeated measures, mixed design, correlation, regression)

Causality and correlation/regression designs

Biserial & Point-Biserial Correlations

Partial Correlation

Know what partial correlation is

Know what zero-order correlation is

Semi-partial correlation

Know about correlation coefficients and effect sizes

Know how to report correlation coefficients

know differences between types of ANOVA (one-way, two-way, repeated measures, mixed design)

know assumptions for all types of ANOVA

Know difference between ANOVA, ANCOVA, and two-way ANOVA

Differences between two-way between-subjects, within-subjects, mixed-design ANOVAs

know what is beting examined for the main effects and interactions of two-way ANOVAs

Collapsing in two-way ANOVA

Know about interactions

Know what to examine first in two-way ANOVA (main effects or interaction)

Differences between paired-samples t-test and repeated measures ANOVA

Know what is a repeated measures design

Know what a longitudinal design is

Know what assumption is not accounted for by using repeated measures ANOVA

Know when repeated measures ANOVA won't work

Know how to do the calculations for repeated measures ANOVA (F statistic only)