

Review for Exam 4 (Chapters 13, 14)

Chapter 13

Key terms

- Analysis of variance (ANOVA)
- Between-treatments variability
- Within-treatments variability
- Treatment effect
- Individual differences
- Experimental error
- F -ratio
- Error term
- Factor
- Levels
- Mean square (MS)
- Eta squared
- Post hoc tests
- Scheffe test
- Tukey's HSD test

Understand the basic purpose for analysis of variance and the logic that underlies this statistical procedure

Perform an analysis of variance to evaluate the data from a single factor, independent-measures research study

Understand when post tests are necessary and the purpose they serve

Be familiar with the post test techniques such as Tukey's HSD and the Scheffe test

Compute eta squared to measure effect size for sample means in ANOVA

Chapter 14

Key terms

- Individual differences
- Between-subjects variability
- Error variability
- Two-factor design
- Matrix
- Cells
- Main effect
- Interaction

Understand the logic underlying ANOVA for a repeated-measures study

Perform an ANOVA to evaluate the mean differences from a single-factor, repeated-measures research study

Understand the concept of a two-factor research design

Understand the concepts of main effects and interactions and be able to recognize and describe these

Conduct a two-factor ANOVA to evaluate the mean differences from a two-factor, independent-measures research study