2-tägiger Kurs

Einführung in die Grundlagen der statistischen Datenanalyse

Der Kurs wird in der Regel in Deutsch durchgeführt, Kursunterlagen erhalten Sie in Englisch.

Folgende Themen werden behandelt:

Chapter 1
Introduction
- Samples and the Population
- Level of Measurement
- A Special Case: Rating Scales
- Independent and Dependent Variables
- Data Access
- A Note about Variable Names and Labels in Dialog Boxes
- Summary

Chapter 2
The Influence of Sample Size
- Precision of Percentages
- Sample Size and Precision
- Precision of Means
- Statistical Power Analysis
- Types of Statistical Errors
- Statistical Significance and Practical Importance
- Summary
- Appendix: Precision of Percentage Estimates

Chapter 3
Data Checking
- Viewing a Few Cases
- Minimum, Maximum and Number of Valid Cases
- Identifying Inconsistent Responses
- When Errors are Discovered
- SPSS Missing Values Option
- Summary

Chapter 4
Describing Categorical Data
- Frequency Tables
- Frequencies Output
- Standardizing the Chart Axis
- Pie Charts
- Summary

Chapter 5
Comparing Groups: Categorical Data
- A Basic Two-Way Table
- Chi-Square Test of Independence
- Requesting the Chi-Square Test
- Different Tests, Different Results?
- Ecological Significance
- Small Sample Considerations
- Additional Two-Way Tables
- Why is the Significance Criterion Typically Set at .05?
- Association Measures
- Association Measures Available within Crosstabs
- Graphing Cross Tabulation Results
- Three-Way Tables
- Extensions
- Summary

Chapter 6
Exploratory Data Analysis: Interval Scale Data
- Frequency Tables and Histograms
- Histograms
- Average Satisfaction Variable
- Exploratory Data Analysis
- Average Satisfaction Variable
- Options with Missing Values
- Measures of Central Tendency
- Variability Measures
- Confidence Band for Mean
- Shape of the Distribution
- Stem & Leaf Plot
- Box & Whisker Plot
- Exploring Age When First Married
- Saving an Updated Copy of the Data
- Summary 6

Chapter 7
Mean Differences Between Groups I: Simple Case
Chapter 8
Mean Differences Between Groups II: One Factor ANOVA

Logic of Testing for Mean Differences
Factors
Exploring the Data
Running One Factor ANOVA
One Factor ANOVA Results
The Bad News - Homogeneity
Post Hoc Testing of Means
Graphing the Results
Summary
Appendix: Group Differences on Ranks
Appendix: Help in Choosing a Statistical Method
Appendix: Help in Interpreting Statistical Results

Chapter 9
Mean Differences Between Groups III: Two Factor ANOVA

Logic of Testing and Assumptions
How Many Factors?
Interactions
Exploring the Data
Two Factor ANOVA
The ANOVA Table
Observed Means
Ecological Significance
Presenting the Results
Summary of Analysis
Summary
Appendix: Post Hoc Tests Using GLM Univariate

Chapter 10
Bivariate Plots and Statistics

Reading the Data
Exploring the Data
Scatterplots
Correlations
Summary

Chapter 11
Introduction to Regression

Introduction and Basic Concepts
The Regression Equation and Fit Measure
Residuals and Outliers
Assumptions
Simple Regression
Multiple Regression
Residual Plots
Multiple Regression Results
Residuals and Outliers
Summary of Regression Results
Stepwise Regression
Stepwise Regression Results
Stepwise Summary
Summary

References

Exercises