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Nota di contenuto	The Analysis of Covariance and Alternatives; Contents; Preface; PART I BASIC EXPERIMENTAL DESIGN AND ANALYSIS; 1 Review of Basic Statistical Methods; 1.1 Introduction; 1.2 Elementary Statistical Inference; 1.3 Elementary Statistical Decision Theory; 1.4 Effect Size; 1.5 Measures of Association; 1.6 A Practical Alternative to Effect Sizes and Measures of Association That Is Relevant to the Individual: p(YTx > YControl); 1.7 Generalization of Results; 1.8 Control of Nuisance Variation; 1.9 Software; 1.10 Summary; 2 Review of Simple Correlated Samples Designs and Associated Analyses 2.1 Introduction 2.2 Two-Level Correlated Samples Designs; 2.3 Software; 2.4 Summary; 3 ANOVA Basics for One-Factor Randomized Group, Randomized Block, and Repeated Measurement Designs; 3.1 Introduction; 3.2 One-Factor Randomized Group Design and Analysis; 3.3 One-Factor Randomized Block Design and Analysis; 3.4 One-Factor Repeated Measurement Design and Analysis; 3.5 Summary; PART II ESSENTIALS OF REGRESSION ANALYSIS; 4 Simple Linear Regression; 4.1

Introduction; 4.2 Comparison of Simple Regression and ANOVA; 4.3 Regression Estimation, Inference, and Interpretation
4.4 Diagnostic Methods: Is the Model Apt?4.5 Summary; 5 Essentials of Multiple Linear Regression; 5.1 Introduction; 5.2 Multiple Regression: Two-Predictor Case; 5.3 General Multiple Linear Regression: m Predictors; 5.4 Alternatives to OLS Regression; 5.5 Summary; PART III ESSENTIALS OF SIMPLE AND MULTIPLE ANCOVA; 6 One-Factor Analysis of Covariance; 6.1 Introduction; 6.2 Analysis of Covariance Model; 6.3 Computation and Rationale; 6.4 Adjusted Means; 6.5 ANCOVA Example 1: Training Effects; 6.6 Testing Homogeneity of Regression Slopes; 6.7 ANCOVA Example 2: Sexual Activity Reduces Lifespan
6.8 Software 6.9 Summary; 7 Analysis of Covariance Through Linear Regression; 7.1 Introduction; 7.2 Simple Analysis of Variance Through Linear Regression; 7.3 Analysis of Covariance Through Linear Regression; 7.4 Computation of Adjusted Means; 7.5 Similarity of ANCOVA to Part and Partial Correlation Methods; 7.6 Homogeneity of Regression Test Through General Linear Regression; 7.7 Summary; 8 Assumptions and Design Considerations; 8.1 Introduction; 8.2 Statistical Assumptions; 8.3 Design and Data Issues Related to the Interpretation of ANCOVA; 8.4 Summary
9 Multiple Comparison Tests and Confidence Intervals 9.1 Introduction; 9.2 Overview of Four Multiple Comparison Procedures; 9.3 Tests on All Pairwise Comparisons: Fisher-Hayter; 9.4 All Pairwise Simultaneous Confidence Intervals and Tests: Tukey-Kramer; 9.5 Planned Pairwise and Complex Comparisons: Bonferroni; 9.7 Ignore Multiple Comparison Procedures?; 9.8 Summary; 10 Multiple Covariance Analysis; 10.1 Introduction; 10.2 Multiple ANCOVA Through Multiple Regression; 10.3 Testing Homogeneity of Regression Planes; 10.4 Computation of Adjusted Means
10.5 Multiple Comparison Procedures for Multiple ANCOVA

Sommario/riassunto

A complete guide to cutting-edge techniques and best practices for applying covariance analysis methods The Second Edition of Analysis of Covariance and Alternatives sheds new light on its topic, offering in-depth discussions of underlying assumptions, comprehensive interpretations of results, and comparisons of distinct approaches. The book has been extensively revised and updated to feature an in-depth review of prerequisites and the latest developments in the field. The author begins with a discussion of essential topics relating to experimental design and analysis