

Contents

- | | | |
|----------|--|----|
| 1 | The Description of Distributions | 11 |
| 1 | Introduction | |
| 2 | Standard deviation as a measure of dispersion | |
| 3 | The practical importance of dispersion | |
| 4 | The calculation of a standard deviation | |
| 5 | Frequency distributions | |
| 6 | The normal distribution | |
| 7 | Standard scores | |
| 2 | The Percentile System | |
| 1 | The median and quartiles of a distribution | |
| 2 | Grouped data | |
| 3 | Deciles and percentiles | |
| 4 | The uses of a percentile scale | |
| 5 | Examples on the normal distribution | |
| 3 | The Measurement of Correlation | 46 |
| 1 | Introduction: the Pearson coefficient of correlation (r) | |
| 2 | Computation of r | |
| 3 | Procedure with grouped data | |
| 4 | The Spearman coefficient of correlation (ρ) | |
| 5 | Rectilinear and curvilinear relationships | |
| 6 | Partial correlation | |
| 4 | Prediction | 67 |
| 1 | Introduction : the regression equation | |
| 2 | Illustrative example | |
| 3 | Regression coefficients | |
| 4 | The uncertainty of prediction | |
| 5 | Combining several predictors | |
| 5 | Test Standardization | 86 |
| 1 | Introduction: test norms | |
| 2 | Age norms | |
| 3 | Percentile norms | |
| 4 | Conversion to standard scores | |
| 6 | Sampling Theory: Fundamental Concepts | 97 |
| 1 | General considerations | |
| 2 | Sampling distributions | |
| 3 | One-tailed and two-tailed tests | |
| 4 | The null hypothesis and levels of significance | |
| 5 | The problem of estimation: confidence limits | |

7 Sampling Theory: Means, Proportions and Standard Deviations	110
1 The t distribution 2 The significance of differences between means 3 The significance of proportions and differences between proportions 4 The significance of standard deviations and differences between standard deviations	
8 Sampling Theory: Analysis of Variance	134
1 Basic concepts 2 A simple methods experiment 3 The special case of two groups 4 A two-way analysis 5 A methods experiment with several schools 6 A more complex analysis	
9 Sampling Theory: Categorical Data	155
1 Introduction: the χ^2 statistic 2 The χ^2 distributions 3 The contingency coefficient 4 The limitations from discontinuity 5 Goodness of fit 6 Measures of correlation: the phi (ϕ), tetrachoric and biserial coefficients	
10 Sampling Theory: Correlation	174
1 The sampling distribution of r 2 Fisher's z transformation 3 The sampling distribution of ρ 4 Chance errors of measurement 5 The determination of reliability 6 Validity	
Index	195