

INDEX

- accessible population, 5
- Albaugh, 167, 196
- alpha (α) level, 102
- alternative hypothesis, 91
- Analysis, 137
- Analysis of variance, 112
- Analyzing the data, 3
- Andrews & Blicke, 212
- ANOVA, 112, 117
- Anticlimatic order, 138
- APA, 3
- Argument, 158
- Associational order, 138
- bar (column chart), 69
- Basic measures, 50, 51
- Bernstein, 192
- between-group variance, 113
- Biserial, 128
- Borst, 1997, 223
- Brase & Brase, 96, 120
- Brooks, 212
- Brown, 52, 127
- Cartoons, 73
- Category proliferation, 25
- Cause and effect, 137, 141
- chance of error, 102
- Chapman & Waller, 167, 212
- Charts, 68
- Chi-square, 106, 130
- Chi-square test, 121
- Chronological, 136
- Chronological order, 138
- Classification, 137, 151
- Climatic order, 138
- closing paragraphs, 197
- coherence, 205
- Collecting data, 3
- Commercial Illustrations, 73
- common errors, 203
- common weaknesses, 197
- Comparison and contrast, 137, 154

- component bar chart, 69
- Computation of Chi-square (X²), 125
- conclusion, 181, 184
- concurrent validity, 39
- Conjunctions, 200

- construct validity, 39
- content validity, 39
- converting the raw data, 40
- Corbett, 135, 138, 146, 151
- correlation, 82
- correlation coefficient, 85
- correlational research, 85
- Cost reports, 136
- Counterbalanced Design, 12
- covariance, 86
- covert observation, 31
- Coyle, 212
- Criterion-referenced tests, 38
- criterion-related validity, 39
- critical value, 92, 95, 110, 111, 119, 123, 125
- D'Angelo, 140, 146, 153
- D'Angelo's, 144
- Data Preparation, 39
- Deductive or Inductive Reasoning, 147
- Definition, 137, 146
- degrees of freedom, 110, 123
- degrees of freedom (df), 117
- dependent variable, 5
- describing the observable items, 145
- Description, 137, 144
- Description of process, 136
- Descriptive Statistics, 50
- design, 178
- Determining Correlation, 128
- developing a theme, 135
- Diagrams, 72
- Difference, 137
- directional hypothesis, 105, 111
- discussion, 184
- Dominant order, 144
- Enumeration, 137, 150
- Equivalent Materials Design, 11
- error variance, 35
- Exemplification, 137, 153
- expected frequency, 122
- expected value, 126
- Experiments, 33
- explanations, 138
- extraneous variables, 7
- F-ratio, 119
- Factorial analysis of variance, 106
- factorial designs, 112
- Familiar to unfamiliar order, 138
- figures, 181, 199
- first draft, 190

Index 2

- Fisher exact test, 130
- Focusing on a problem, 1
- Formulating a hypothesis, 2
- Fraenkel & Wallen, 13
- frequency, 50
- Frequency distribution, 67
- frequency,, 51
- Friedman's two-way ANOVA, 130
- Functional, 136
- Gay, 4, 49, 175, 178, 180
- Gibaldi, 224
- Gibaldi & Aichert, 212
- Glidden, 18, 136, 199, 203
- Graphs, 66, 181
- Hatch & Lazaraton, 103, 105, 109
- Hubbuck, 191
- hypothesis statement, 166, 174
- Identification, 137
- independent variable, 5, 123
- Inferential statistics, 101
- instruments, 177, 179
- interpretations, 181
- Interval Scale, 47, 121
- Interviews, 27
- introduction, 165
- Kendall's tau, 128
- Kendall's W, 128
- Known to unknown, 137
- Krashen, 128
- Kruskal-Wallis Test, 105, 130
- Kuder-Richard Formula 21, 37
- Kuder-Richardson formula 20, 36
- left-tailed test, 92
- Lester, 164, 167, 183, 193, 197
- linear movement, 136
- Logical order, 138
- Long, Convey, & Chwalek, 212
- Manufacturing sequence, 136
- Map Graphs, 71
- Mayes, 212
- Mean, 52
- mean square, 119
- Measures of central tendency, 50, 51
- Measures of Relative Position, 57
- Measures of variability, 51, 54
- Median, 52
- Menasche, 212
- MLA, 3
- Mode, 53
- Modifiers, 200
- Moore, 51, 58, 110, 176, 178
- Mulkerne & Kahn, 191
- multiple bar chart, 70
- Multiple regression, 128
- Multiple Time-series Design, 13
- Multivariate analyses, 129
- Narration, 136, 137, 139
- negatively skewed, 56
- Newman & Newman, 102, 104, 106, 111, 112
- nominal data, 121
- Nominal Scale, 47
- non-directional hypothesis, 105
- Non-participant Observation, 32
- Nonequivalent Control Group Design, 11
- Norm-referenced tests, 38
- normal curve, 57, 92
- normal distribution, 56
- null hypothesis, 91, 101, 103, 123
- Numerals, 199
- Observation, 30
- observed frequency, 122
- observed score variance, 34
- observed value, 126
- One-group Pretest-posttest Design, 8
- One-shot Case Study, 8
- One-way analysis of variance, 106
- One-way ANOVA, 129
- Order of memory, 145
- Order of need, 137
- Order of observation, 145
- Ordinal Scale, 47
- Organizational Patterns, 136
- outline, 2
- overt observation, 31
- Parametric tests, 105, 106
- Participant Observation, 32
- Partition, 137
- Pearson Product-moment Correlation Coefficient, 86
- Pearsonproduct-moment correlation coefficient, 128
- percentage, 50, 51
- percentile rank, 51
- Percentile ranks, 58
- perfect linear relationship, 82
- perfect negative relationship, 85
- perfect overlap, 91
- perfect positive relationship, 85
- perfect zero relationships, 85
- Phi coefficient, 130
- Phi coefficient,, 129

- Photographs, 73
- pie chart, 70
- Piotrowski, 194, 211
- Point-biserial correlation, 128
- population, 4
- positively skewed, 56
- Posttest-only Control Group Design, 10
- Pretest-posttest Control Group Design, 9
- probability level, 102
- Problem statement, 168, 171
- problem to be investigated, 166
- procedure, 178, 179, 180
- Process, 137, 140
- process description, 6
- Progressive logical topics, 137
- Pronouns, 200
- proofreading, 198
- proportion, 50
- proportion, 51
- purpose of the study, 166
- purpose statement, 1, 172
- Questionnaires, 19
- Radiant order, 144
- Range, 57
- Ranking questions, 26
- Ratio Scale, 47
- raw scores, 86
- recommendation, 181, 186
- reference, 181
- regression analysis, 97
- Reliability, 34
- research design, 2
- research proposal, 2
- research question, 1
- Review of Literature, 175
- Reviewing the literature, 2
- right-tailed test, 92
- Rowley & Turner, 70
- sample, 5
- sampling, 102
- Scale point proliferation, 25
- scatterplot graph, 82, 83
- scope, 185
- Sensitive questions, 26
- sentence length, 202
- Separate-sample Pretest-posttest Design, 13
- Similarity, 137
- Simple regression, 128
- slope, 84, 97
- Solomon Four-group Design, 10
- Spatial order, 138, 144
- Spearman rank-order correlation coefficient, 95
- Spearman rho, 93, 128
- Standard deviation, 55
- standard error of the mean, 103
- standard scores, 51, 58
- state description, 6
- statement of the problem, 171
- Static logical topics, 137
- Static-group Comparison, 9
- subjects, 176, 179
- sum of squares total (SST), 114
- T score, 59
- t-table, 110
- t-test, 106, 107, 110
- t-value, 110
- Tables, 63
- tables, 181
- target population, 5
- Test Results, 33
- Tests of Significance, 106
- tetrachoric correlation, 129, 130
- threats, 7
- time-series experiment, 10
- title, 164
- total variance, 34, 113
- Transitions, 201
- Trouble Makers, 206
- true score variance, 34
- Tuckman, 127
- Turabian, 63
- two-tailed test, 105
- Two-way or three-way (etc.) ANOVA, 129
- Type I error, 104
- Type II error, 104
- unity, 205
- Validity, 38
- Van Hagan, 212
- variables, 82
- Variance, 54
- Variance estimate, 117
- Veldman, 192
- Visual Media, 73
- Walker, 212
- Whitten et al., 148
- Whole to part (or reverse), 138
- William & Stevenson, 63
- Williams, 212
- Winkler & McCuen, 212

within-group variance, 113
z score, 58
z statistics, 129
z-scores, 86
Zinsser, 212