

Contents

<i>List of figures</i>	page ix
<i>List of tables</i>	x
<i>List of boxes</i>	xi
<i>Introduction</i>	xiii
Part I Effect sizes and the interpretation of results	1
1. Introduction to effect sizes	3
<i>The dreaded question</i>	3
<i>Two families of effects</i>	6
<i>Reporting effect size indexes – three lessons</i>	16
<i>Summary</i>	24
2. Interpreting effects	31
<i>An age-old debate – rugby versus soccer</i>	31
<i>The problem of interpretation</i>	32
<i>The importance of context</i>	35
<i>The contribution to knowledge</i>	38
<i>Cohen’s controversial criteria</i>	40
<i>Summary</i>	42
Part II The analysis of statistical power	45
3. Power analysis and the detection of effects	47
<i>The foolish astronomer</i>	47
<i>The analysis of statistical power</i>	56
<i>Using power analysis to select sample size</i>	61
<i>Summary</i>	66

4. The painful lessons of power research	73
<i>The low power of published research</i>	73
<i>How to boost statistical power</i>	81
<i>Summary</i>	82
Part III Meta-analysis	87
5. Drawing conclusions using meta-analysis	89
<i>The problem of discordant results</i>	89
<i>Reviewing past research – two approaches</i>	90
<i>Meta-analysis in six (relatively) easy steps</i>	97
<i>Meta-analysis as a guide for further research</i>	109
<i>Summary</i>	112
6. Minimizing bias in meta-analysis	116
<i>Four ways to ruin a perfectly good meta-analysis</i>	116
1. <i>Exclude relevant research</i>	117
2. <i>Include bad results</i>	122
3. <i>Use inappropriate statistical models</i>	127
4. <i>Run analyses with insufficient statistical power</i>	130
<i>Summary</i>	131
Last word: thirty recommendations for researchers	134
Appendices	
1. Minimum sample sizes	138
2. Alternative methods for meta-analysis	141
<i>Bibliography</i>	153
<i>Index</i>	170