

The following table includes suggestions for use of the data sets provided. Some of the data sets are described in the book but we have also included some additional, larger data sets. These larger data sets do not have scenarios and are set out as variables with groups or conditions and measures; these can be adapted by the user to fit their own area of study. Each statistical test has been set out with an example of when the results of the statistical test were to be significant or not. All results are shown with a two-tailed significance level and are shown as significant at the 0.01 or 0.05 level.

<i>What do you want to do?</i>	<i>Number of variables/ conditions</i>	<i>Design</i>	<i>Parametric/ nonparametric</i>	<i>Recommended statistical test</i>	<i>Data set</i>
Look for differences between conditions	One variable: two conditions	Independent	Parametric	Independent samples <i>t</i> test	Independent <i>t</i> test data (Chapter 6)
					Independent <i>t</i> test sample data with significant differences Two groups (50 participants in each group) with scores ranging from 1 to 10.
					Independent <i>t</i> test sample data with non-significant differences Two groups (50 participants in each group) with scores ranging from 1 to 10.
Look for differences between conditions	One variable: two conditions	Repeated measures	Parametric	Related <i>t</i> test or paired <i>t</i> test	Paired <i>t</i> test data (Chapter 6)
					Paired sample <i>t</i> test data with significant differences One group of 50 participants with scores ranging from 6 to 29.
					Paired sample <i>t</i> test data with no significant differences One group of 50 participants with scores ranging from 9 to 29.
Look for differences between conditions	One variable: two conditions	Independent	Nonparametric	Mann–Whitney <i>U</i>	Mann–Whitney test data (Chapter 11)
					Mann–Whitney <i>U</i> test sample data with significant differences Two groups (30 participants in each group) with scores ranging from 1 to 6.
					Mann–Whitney <i>U</i> test sample data with non-significant differences Two groups (30 participants in each group) with scores ranging from 1 to 6.
Look for differences between	One variable: two conditions	Repeated measures	Nonparametric	Wilcoxon	Wilcoxon test data (Chapter 11)
					Wilcoxon test data with significant differences One group of 120 participants with scores ranging from 0 to 20.

conditions					Wilcoxon test data with significant differences One group of 120 participants with scores ranging from 0 to 20.
Look for differences between conditions	One variable: more than two conditions	Independent measures	Parametric	One factor independent measures ANOVA	Independent ANOVA data (Chapter 8)
					Independent ANOVA test sample data with significant differences Three groups (60 in groups one and two, and 50 in group three) with scores ranging from 1 to 50.
					Independent ANOVA test sample data with non-significant differences Three groups (60 in groups one and two, and 50 in group three) with scores ranging from 2 to 50.
Look for differences between conditions	One variable: more than two conditions	Repeated measures	Parametric	One factor repeated measures ANOVA	Repeated measures ANOVA data (Chapter 8)
					Repeated measures ANOVA test sample data with significant differences One group with three conditions (200 participants in each condition) with scores ranging from 10 to 100.
					Repeated measures ANOVA test sample data with significant differences between conditions 1 and 3 One group with three conditions (200 participants in each condition) with scores ranging from 10 to 100.
Look for differences between conditions	One variable: more than two conditions	Independent measures	Nonparametric	Kruskal–Wallis	Kruskal–Wallis data (Chapter 12)
					Kruskal–Wallis test sample data with significant differences Three groups (30 participants in each group) with scores ranging from 0 to 50.
					Kruskal–Wallis test sample data with non-significant differences Three groups (30 participants in each group) with scores ranging from 0 to 50.
Look for differences between conditions	One variable: more than two conditions	Repeated measures	Nonparametric	Friedman	Friedman data (Chapter 12)
					Friedman test sample data with significant differences One group with 180 participants in three conditions with scores ranging from 1 to 75.

					Friedman test sample data with non-significant differences One group with 180 participants in three conditions with scores ranging from 1 to 75.
Look for differences between conditions	Two variables	Independent measures on both variables	Parametric	Two factor independent ANOVA	Independent two factor ANOVA data (Chapter 9)
					Independent two factor ANOVA test sample data with significant differences and interaction Two groups and two conditions within each group (10 participants in each group and 10 participants in each condition) with scores ranging from 398 to 756.
Look for differences between conditions	Two variables	Independent measures on both variables	Parametric	Two factor independent ANOVA	Independent two factor ANOVA test sample data with significant differences and interaction Two groups and two conditions within each group (10 participants in each group and 10 participants in each condition) with scores ranging from 398 to 756.
Look for differences between conditions	Two variables	Repeated measures on both variables	Parametric	Two factor repeated measures ANOVA	Repeated measures ANOVA data (Chapter 9)
					Repeated measures ANOVA test sample data with significant differences and interaction One group with four conditions (50 participants in each condition) with scores ranging from 60 to 600.
Look for differences between conditions	Two variables	Repeated measures on both variables	Parametric	Two factor repeated measures ANOVA	Repeated measures ANOVA test sample data with no significant differences and interaction One group with four conditions (50 participants in each condition) with scores ranging from 60 to 600.
Look for differences between conditions	Two variables	One independent and one repeated measures factor	Parametric	Two factor mixed design ANOVA	Mixed design two factor ANOVA data (Chapter 9)
					Mixed design two factor ANOVA test sample data with significant differences and no interaction Sphericity violation. Two groups with two conditions (20 participants in each group) with scores ranging from 426 to 756.

Look for differences between conditions	Two variables	One independent and one repeated measures factor	Parametric	Two factor mixed design ANOVA	Mixed design two factor ANOVA test sample data with no significant differences and no interaction Sphericity violation. Two groups with two conditions (20 participants in each group) with scores ranging from 398 to 756.
Look for differences between conditions	More than one dependent variable	Independent measures	Parametric	Independent MANOVA	Independent MANOVA data (Chapter 10)
					Repeated measures MANOVA data (Chapter 10)
Compare frequency counts (in categories)			Nonparametric	Chi-square	Chi-square data (Chapter 13)
					Chi-square test sample data with no significant association 2,050 cases in total. A few missing cases. One variable two levels. One variable three levels.
					Chi-square test sample data with significant association 1,800 cases in total. A few missing cases. One variable three levels. One variable four levels.
Correlate variables	Two variables	Correlational	Parametric	Pearson	Pearson correlation data (Chapter 14)
					Pearson correlation test sample data with significant positive correlation Two variables (25 cases in each variable) with scores ranging from 1 to 9.
					Pearson correlation test sample data with no significant correlation Two variables (25 cases in each variable) with scores ranging from 1 to 9.
Correlate variables	Two variables	Correlational	Nonparametric	Spearman	Spearman correlation data (Chapter 14)
Correlate variables	Two or more variables	Regression	Parametric	(Multiple) regression	Multiple regression data (Chapter 15)
Reduce data	Many variables	Correlational	Parametric	Factor analysis	Factor analysis data (Chapter 16)
					Factor analysis sample data with two components

Reduce data	Many variables	Correlational	Parametric	Reliability analysis	Reliability analysis data (Chapter 17)
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