

analysis of data

BASIC STATISTICAL TESTS							
DIFFERENCE ANALYSIS (BETWEEN GROUP COMPARISONS)							
NAME	TYPE	SYMBOL	NO. OF INDEPENDENT VARIABLES	TYPE OF DATA (DEPENDENT VARIABLE)	ASSUMPTIONS		
chi-square	nonparametric	$\chi^2$	1, with two or more nominal groups or categories	nominal	independence of observations		
crosstabs	nonparametric	$\chi^2$	2 or more, with nominal groups or categories	nominal	independence of observations		
t-test (for independent samples)	parametric	t	1, with <u>only</u> two groups or categories	interval/ratio (scale in SPSS)	independence of groups, dependent measure is normally distributed, equality of variance		
one-way ANOVA (single factor ANOVA)	parametric	<i>F ratio</i>	1, with three or more groups, conditions, or categories	interval/ratio (scale in SPSS)	independence of groups, dependent measure is normally distributed, equality of variance		
two-way ANOVA (factorial analysis of variance)	parametric	<i>F ratio</i>	2, with multiple conditions or "cells"	interval/ratio (scale in SPSS)	independence of groups, dependent measure is normally distributed, equality of variance		
CORRELATION ANALYSIS (ASSOCIATION, COVARIATION)							
Cramer's V	nonparametric	V	bivariate, two variables	nominal	linear relationship		
Spearman's rho	nonparametric	$\rho$	bivariate, two rank ordered variables	ordinal (rankings)	linear relationship		
Kendell's tau-b	nonparametric	$\tau_b$	bivariate, two rank ordered variables, better for <u>tied rankings</u>	ordinal (rankings)	linear relationship		
Pearson r (Pearson product moment correlation)	parametric	r	bivariate, two continuous variables	interval/ratio	linear relationship		