MULTIVARIATE STATISTICAL ANALYSES

Name	Purpose	Measurement Level*			Number of:		
		IV	DV	Cov	IVs	DVs	Cov
Multiple correlation/ regression	To test the relationship between 2+ IVs and 1 DV; to predict a DV from 2+ IVs.	N, I, R	I, R	----	2+	1	----
Analysis of Covariance (ANCOVA)	To test the difference between the means of 2+ groups, while controlling for 1+ covariate.	N	I, R	N, I, R	1+	1	1+
Multivariate Analysis of Variance (MANOVA)	To test the difference between the means of 2+ groups for 2+ DVs simultaneously.	N	I, R	----	1+	2	----
Multivariate Analysis of Covariance (MANCOVA)	To test the difference between the means of 2+ groups for 2+ DVs simultaneously, while controlling for 1+ covariate.	N	I, R	N, I, R	1+	2+	1+
Canonical Analysis	To test the relationship between 2 sets of variables (variables on the right, and on the left)	N, I, R	N, I, R	----	2+	2+	----
Factor Analysis	To determine the dimensionality/structure of a set of variables.	----	----	----	----	----	----
Discriminant Analysis	To test the relationship between 2+ IVs and 1 DV; to predict group membership; to classify cases into groups.	N, I, R	N	----	2+	1	----
Logistic Regression	To test the relationship between 2+ IVs and 1 DV; to predict the probability of an event; to estimate the relative risk.	N, I, R	N	----	2+	1	----

*Measurement level of the independent variable (IV) and Dependent Variable (DV); N = Nominal, I = Interval, R = Ratio