Metsämuuronen, J. (2017). *Essentials of Research Methods in Human Sciences. Vol. 2: Multivariate Analysis.* **SAGE Publications, Inc.**

Volume 2 is divided into two sections of which the latter one is quite large – it could have been possible to be divided into four sections. The first Section, *Basics of SPSS software,* differs from the previous sections in Volume 1, both visually and content-wise. This section introduces one of the most widely used software packages for the statistical analysis. When all the calculations were made manually in the Volume 1, the SPSS software is mainly used in calculations in Volumes 2 and 3. All the main selections and outputs (results) are shown graphically and as illustrative as possible. The example dataset in this section is the same as what was used in the fifth section of Volume 1; the same results are expected.

The eighth Section, *Basics of Multivariate Statistics*, is the largest section of the handbook. The reader is lead to the traditional multivariate methods in the toolbox of a researcher. The multivariate statistics are divided into four "families": **regression analyses**, **factor analyses**, **analyses of variance**, and **cluster and classification analyses**. Within these families, several methods are introduced with practical examples. The family of regression analyses includes *linear regression analysis* (RA), *logistic regression analysis* (LRA), and *canonical correlation analysis* (CCA). The family of factor analyses includes *principal component analysis* (PCA), *exploratory factor analysis* (EFA), and *confirmatory factor analysis* (CFA) also known as structural equation modelling (SEM). The family of analyses of variance includes *one- and multiway ANOVA* and *general linear modeling* (GLM), analysis of covariance (ANCOVA), and *multivariate ANOVA* (MANOVA). The family of cluster and classification analyses includes *linear discriminant analysis* (LDA), *cluster analysis* (CA), and *decision tree analysis* (DTA).

All the methods are introduced from five perspectives:
1) the situation that the method is the best for, or *suitability* of the method,
2) the assumptions and limits of the method,
3) a brief overview for the theory and concepts of the method,
4) additional tests or further analysis that *should* be used or that *can* be used with each method, and
5) the technical execution and interpretation in SPSS environment – or some other relevant environment such as LISREL software.

The sections concerning theory and concepts might seem somewhat heavy for those who are not professional of mathematics or statistics. However, there is no need to learn the matters by heart; the important thing is that they are available when needed. The point is how to *do* the analysis and to *interpret* the results.