

Multivariate joint analysis of reading habits and practices among the staff of public libraries in Mexico

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In this work, a family of "assembled" multivariate techniques is used, which are new joint multivariate analysis procedures, which simultaneously perform two optimization processes: dimensionality reduction (which works on the variables) and grouping (of individuals). from the creation of clusters. The use is illustrated in the framework of a survey sample research that produced data on the reading habits and practices of public librarians in Mexico. The objective of the research was to identify the factors that define a grouping in three segments of librarians to implement training strategies in reading promotion. Two options are implemented: (1) for a series of categorical data, a cluster analysis (CA) is performed together with a dimensionality reduction via multiple correspondence analysis (MCA) —which here will be called Cluster CA—; and (2) for quantitative data, a cluster analysis (CA) is performed together with a dimensionality reduction by the PCA method, —which will be called CP Cluster—. For the analysis strategy, the R `clustrd` library was used, which produces numerical and graphic outputs that report on the association between variables and the grouping of individuals (Markos et al., 2019).

Keywords: Cluster analysis, reading promotion, librarians.

Markos, A., Iodice D'enza, A. and Van Der Velden, M. (2019b): Beyond tandem analysis: Joint dimension reduction and clustering in R. *Journal of Statistical Software (Online)*, 91(10).