

## Using SEM Library of R software to Analyze Exploratory Structural Equation Models

Joan Guàrdia-Olmos

University of Barcelona; Institute for Brain, Cognition and Behaviour, Barcelona, Spain  
[jguardia@ub.edu](mailto:jguardia@ub.edu)

Maribel Peró-Cebollero\*

University of Barcelona; Institute for Brain, Cognition and Behaviour, Barcelona, Spain  
[mpero@ub.edu](mailto:mpero@ub.edu)

Sonia Benítez-Borrego

University of Barcelona; Institute for Brain, Cognition and Behaviour, Barcelona, Spain  
[sbenitez@ub.edu](mailto:sbenitez@ub.edu)

John Fox

McMaster University, Toronto, Canada  
[jfox@mcmaster.ca](mailto:jfox@mcmaster.ca)

Using R and its libraries is probably one of the most revolutionary operations in recent years regarding the use of statistical programs. Both expanding their opportunities have far exceeded the first aspirations of promoters. The quantity and quality of its libraries and the versatility of its procedures are keys to the massive success both in programming and in the use of statistical methods. This increase is not only aimed at the most basic questions of statistics, but it is still essential for many applied researchers and even for teaching in Statistics.

Similarly, the Structural Equation Models (SEM) have become a commonly used technique in many of the applied research, especially in the domain of social sciences and R options for SEM, should be a piece to consider and applied for parameter estimation.

Within the SEM stage, one of the latest contributions focuses on his side called Exploratory Structural Equation Models (ESEM) for a different perspective on exploratory factor structures. The aim of this paper is to show some of the adaptations feasible for parameter estimation by SEM library of R Project.

**Key Words:** Exploratory Structural Equation Models, R Project