

RALSA: The R Analyzer for Large-Scale Assessments

Plamen Vladkov Mirazchiyski

Educational Research Institute, Slovenia

International Educational Research and Evaluation Institute, Slovenia

plamen.mirazchiyski@pei.si

Abstract

This paper presents the R Analyzer for Large-Scale Assessments (RALSA), a newly developed free of charge and open-source R package for analysing data from studies using complex sampling and assessment designs. The paper presents the architecture of the package and the overall workflow. RALSA is the first comprehensive R package, designed for user experience. It can convert SPSS data from large scale assessments into native R data sets. It also can do so for PISA data from cycles prior to 2015 where the data is provided in tab-delimited text files along with SPSS control syntax files. It has a graphical user interface written in R, working in any operating system where R can be installed. The analysis outputs are written into MS Excel workbook with multiple sheets for different statistics. The flexible design of RALSA allows for quick addition of new studies, analysis types and features to the existing ones.

Keywords: large-scale assessments, complex sampling design, complex assessment design, R package, graphical user interface, statistical analysis, open-source