rempsyc: Convenience functions for psychology

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Summary

(R Core Team 2022)

{rempsyc} is an R package of convenience functions to make the analysis-to-publication workflow faster and easier. It affords easily customizable plots (via {ggplot2}) and nice APA tables exportable to Word (via {flextable}); it makes it easy to run statistical tests, check assumptions, or automatize various tasks. It is a package mostly geared at researchers in the psychological sciences but people from all fields can find it useful.

Introduction

Statement of need

There are many reasons to use R (R Core Team 2022) for analyzing and reporting data from research studies. R is more compatible with the ideals of open science (Quintana 2020). In contrast to commercial software: (a) it is free to use; (b) it makes it easy to share a fully comprehensive analysis script; (c) it is transparent as anyone can look at the formulas or algorithms used in a given package; (d) the community can quickly contribute new packages based on current needs; (e) it generates better-looking figures; and (f) it helps reduce copy-paste errors so common in psychology[1].

However, R has a major downside: its steep learning curve due to its programmatic interface, in contrast to perhaps more beginner-friendly point-and-click software. Of course, this flexibility is also a strength, and there are increasing momentum for producing packages that make using R as easy as possible.

The R software thus makes it possible to export the results (in the form of text (e.g., the "report" package from easystats) or tables (e.g., the rempsyc package) directly into Microsoft Word or Microsoft Excel. It also makes it possible to check s 'there are obvious statistical errors directly in the PDF of your final article (via the statcheck package). Note for artists, it is also the software that makes the most beautiful figures to visualize your data and results !

Examples of Features

Acknowledgements

References

Quintana, D. S. 2020. *Five Things about Open and Reproducible Science That Every Early Career Researcher Should Know*. https://osf.io/2jt9u.

R Core Team. 2022. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.

[1] according to some estimates, up to 50% of articles have at least one statistical error (Nuijten et al., 2016)