Package 'projectLSA'

May 9, 2026

Title Shiny Application for Latent Structure Analysis with a Graphical User Interface

Version 0.0.9

Description Provides an interactive Shiny-based toolkit for conducting latent structure analyses, including Latent Profile Analysis (LPA), Latent Class Analysis (LCA), Latent Trait Analysis (LTA/IRT), Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), and Structural Equation Modeling (SEM). The implementation is grounded in established methodological frameworks: LPA is supported through 'tidyLPA' (Rosenberg et al., 2018) <doi:10.21105/joss.00978>, LCA through 'poLCA' (Linzer & Lewis, 2011) <doi:10.32614/CRAN.package
elle, 2025). SEM and CFA functionalities build upon the 'lavaan' framework (Rosseel, 2012) <doi:10.18637/jss.v048.i02>. Users can upload datasets or use built-in examples, fit models, compare fit indices, visualize results, and export outputs without programming.

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Depends R (>= 4.0.0)

Encoding UTF-8

Imports colourpicker, data.table, dplyr, DT, flextable, ggiraph, ggplot2, glca, haven, kableExtra, knitr, lavaan, magick, mclust, mirt, officer, plotly, poLCA, psych, purrr, readr, readxl, rlang, rmarkdown, scales, semPlot, semptools, shiny, shinyWidgets, stats, stringr, tibble, tidyr, tidyLPA, tidyverse, viridisLite

Suggests pkgdown, testthat (>= 3.0.0)

VignetteBuilder knitr

URL https://github.com/hdmeasure/projectLSA

BugReports https://github.com/hdmeasure/projectLSA/issues

Config/roxygen2/version 8.0.0

Config/testthat/edition 3

NeedsCompilation no

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Contents

`run_projectLSA` *Launch the projectLSA Shiny Application*

Description

This function starts the Shiny app included in the projectLSA package.

Usage

```
run_projectLSA()
```

Value

Launches a Shiny application (no return value)

Examples

```
if (interactive()) {
  projectLSA::run_projectLSA()
}
```

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