Package 'RcmdrPlugin.BWS2'

June 7, 2022

Type Package

Title R Commander Plug-in for Case 2 Best-Worst Scaling

Version 0.1-0

Date 2022-06-03

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Depends support.BWS2 (>= 0.4-0), support.CEs, survival

Imports Rcmdr, DoE.base

Description Adds menu items for Case 2 (profile case) best-worst scaling (BWS2) to the R Commander. BWS2 is a question-based survey method that constructs profiles (combinations of attribute levels) using an orthogonal array, asks respondents to select the best and worst levels in each profile, and measures preferences for attribute levels by analyzing the responses. For details, see Aizaki and Fogarty (2019) <doi:10.1016/j.jocm.2019.100171>.

License GPL (>= 2)

RcmdrModels clogit

NeedsCompilation no

Repository CRAN

Date/Publication 2022-06-07 07:40:08 UTC

R topics documented:

RcmdrPlugin.BWS2-package

R Commander Plug-in for Case 2 Best-Worst Scaling

Description

This package adds menu items for Case 2 (profile case) best-worst scaling (BWS2) to the R Commander. BWS2 is a question-based survey method that constructs profiles (combinations of attribute levels) using an orthogonal array, asks respondents to select the best and worst levels in each profile, and measures preferences for attribute levels by analyzing the responses. For details, see Aizaki and Fogarty (2019) <doi:10.1016/j.jocm.2019.100171>.

Details

This package is an R Commander plug-in package for Case 2 (profile case) best–worst scaling (BWS2). It depends on **DoE.base** (Groemping 2018), **Rcmdr** (Fox 2005, 2017; Fox and Bouchet-Valat 2021), **support.BWS2** (Aizaki 2021; Aizaki and Fogarty 2019), **support.CEs** (Aizaki 2012, 2021), and **survival** (Therneau 2022; Therneau and Grambsch 2000). Refer to Aizaki and Fogarty (2019) and "Non-Market Valuation with R" <`http://lab.agr.hokudai.ac.jp/nmvr/`> for a brief introduction to BWS2 in R, and Louviere et al. (2015) and Flynn et al. (2007) for BWS2.

After successfully installing and loading the **RcmdrPlugin.BWS2**, the R Commander window will appear, and then you will find "BWS2" added to the top-level menus in the R Commander window.

Selecting "BWS2" displays menu items. When selecting a menu item, the corresponding dialog box opens. The following dialog boxes are provided by **RcmdrPlugin.BWS2**:

- The dialog box for "Design profiles..." designs choice sets (profiles) for BWS2 with an orthogonal design using the function `oa.design` in **DoE.base**.

- The dialog box for "Display questions..." displays BWS2 questions from the profiles designed in the first dialog box using the function `bws2.questionnaire` in **support.BWS2**.

- The dialog box for "Prepare data set for analysis..." prepares a data set for analysis combining the choice sets designed in the first dialog box and a data set containing responses to BWS2 questions using the function `bws2.dataset` in **support.BWS2**.

- Selecting the menu item "Measure preferences..." gives options: "Counting approach" and "Modeling approach". Each has additional sub-items (see below).

- The dialog box for "Calculate scores..." calculates various BW scores for each respondent from the data set for analysis created in the previous dialog box, and then stores them into a data frame using the function `bws2.count` in **support.BWS2**. The menu item is activated if a data set for analysis created in the previous dialog box is selected as the active data set.

- Selecting "Sum up scores" sums up the BW scores calculated in the previous dialog box and displays the results in the Output pane of the R Commander window. The menu item is activated if a data frame containing BW scores created in the previous dialog box is selected as the active data set.

- The dialog box for "Draw distributions of scores..." draws distributions (bar plots) of the BW scores by level using an R basic graphic function barplot (S3 method for class 'bws2.count': `bws2.count`). The menu item is activated if a data frame containing BW scores created in the previous dialog box is selected as the active data set.

- The dialog box for "Fit model..." implements a conditional logit model analysis of the data set for analysis created in the previous dialog box using the functions `clogit` in **survival** and `gofm` in **support.CEs**. The menu item is activated if a data set for analysis created in the previous dialog box is selected as the active data set.

Acknowledgments

Author(s)

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Examples

```
if(interactive()) {
  library(RcmdrPlugin.BWS2)
}
```

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