Package: pomcheckr (via r-universe)

October 14, 2024

Title Graphical Check for Proportional Odds Assumption

Version 0.1.1

Description Implements the method described at the UCLA Statistical Consulting site <https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/> for checking if the proportional odds assumption holds for a cumulative logit model.

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Encoding UTF-8

LazyData true

Roxygen list(markdown = TRUE)

RoxygenNote 7.1.1

Suggests testthat (>= 3.0.0), knitr, rmarkdown

Config/testthat/edition 3

Imports dplyr, tidyr (>= 1.0.0), ggplot2, assertthat, stats, rlang, magrittr, stringr

Depends R (>= 2.10)

VignetteBuilder knitr

Repository https://melissa-wong.r-universe.dev

RemoteUrl https://github.com/melissa-wong/pomcheckr

RemoteRef HEAD

RemoteSha 41563c1bdceed1ee6b186c3e8d01c4ff1dac8447

Contents

nhanes *National Health and Nutrition Examination Survey 2011-2012*

Description

A dataset used in the UCLA Statistical Consulting Survey Analysis in R guide https://stats.idre.ucla.edu/r/seminars/survey-data-analysis-with-r/

Usage

```
nhanes
```

Format

A data frame with 9756 rows and 16 variables:

seqn Respondent sequence number

ridageyr Age in years at screening

riagendr Gender

dmdmartl Marital status

dmdeduc2 Education level - Adults 20+

sdmvpsu Masked variance pseudo-PSU

sdmvstra Masked variance pseudo-stratum

wtint2yr Full sample 2 year interview weight

female Gender

hsq496 How many days feel anxious

hsq571 SP donated blood in the past 12 months

hsd010 General health condition

pad630 Minutes moderate-intensity work

pad675 Minutes moderate recreational activities

paq665 Moderate recreational activities

pad680 Minutes sedentary activity

Source

https://wwwn.cdc.gov/nchs/nhanes/Search/DataPage.aspx?Component=Demographics&CycleBeginYear=2011

ologit *Simulated data for ordinal logistic regression example.*

Description

A dataset used in the UCLA Statistical Consulting Ordinal Logistic Regression Example https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/

Usage

```
ologit
```

Format

A data frame with 400 rows and 4 variables:

apply Likelihood of applying to graduate school

pared Indicator for whether at least 1 parent has a graduate degree

public Indicator for whether undergraduate institution is public or private

gpa Student's grade point average

Source

https://stats.idre.ucla.edu/stat/data/ologit.dta

plot.pomcheck *Graphical check for proportional odds assumption*

Description

Generates the plots described in https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/ for checking if the proportional odds assumption holds for a cumulative logit model.

Usage

```
## S3 method for class 'pomcheck'
plot(x, legend.position = "none", ...)
```

Arguments

x	a pomcheck object
legend.position	the position of legends ("none", "left", "right", "bottom", "top", or two-element numeric vector)
...	currently unused

Value

None

See Also

pomcheck

Examples

```
plot(pomcheck(Species ~ Sepal.Width, iris))
```

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pomcheck *Graphical check for proportional odds assumption*

Description

Implements the method described in https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/ for checking if the proportional odds assumption holds for a cumulative logit model.

Usage

```
pomcheck(object, ...)

## Default S3 method:
pomcheck(object, x, data, ...)

## S3 method for class 'formula'
pomcheck(formula, data, ...)
```

Arguments

object	character string for response
...	currently unused
x	vector of character string(s) for explanatory variable(s)
data	data frame containing the variables
formula	formula of the form y ~ x1 + x2 + ...

Value

an object of class 'pomcheck'

Methods (by class)

- default: default
- formula: supports formula specification

See Also

plot.pomcheck

Examples

```
pomcheck(Species ~ Sepal.Length, iris)
pomcheck(Species ~ Sepal.Length + Sepal.Width, iris)
pomcheck(object="Species", x="Sepal.Length", iris)
pomcheck(object="Species", x=c("Sepal.Length", "Sepal.Width"), iris)
```

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