**ShinyItemAnalysis** Test and item analysis

Data | Summary ▾ | Reliability ▾ | Validity ▾ | Item analysis ▾ | Regression ▾ | IRT models ▾ | DIF/Fairness ▾ | Reports

Description
About DIF and DDF
Total scores, matching variables

Dichotomous methods
Delta plot
Mantel-Haenszel
Logistic regression
Generalized logistic
IRT Lord
IRT Raju
SIBTEST
Method comparison

Polytomous methods
Cumulative logit
Adjacent category logit
Multinomial

Summary | Items

# Generalized logistic regression

Generalized logistic regression models are extensions of logistic regression method which account for possibility o[f] ... er asymptote - pseudo-guessing $c$ (Drabinova & Martinkova, 2017) or upper asymptote lower than one - inattention $d$. Similarly to logistic ... detection of uniform and non-uniform DIF by letting the difficulty parameter $b$ (uniform) and the discrimination parameter $a$ (non-uniform) dif... ce in their values. Moreover, these extensions allow for testing differences in pseudo-guessing and inattention parameters and they ... IRT models for DIF detection.

## Method specification

Here you can specify the assumed **model.** In 3PL and 4PL models, the abbreviations $c_g$ or $d_g$ mean that paramet... for both groups, otherwise they are allowed to differ. With **type** you can specify the type of DIF to be tested by choosing the parameters in wh... be tested. You can also select **correction method** for multiple comparison or **item purification.**

Finally, you may change the **DIF matching variable.** While matching on standardized total score is typical, upload ... ble in section **Data.** Using a pre-test (standardized) total score allows for testing differential item functioning in change (DIF-C) to provide pro... va et al., 2020), also see `Learning To Learn 9` toy dataset. For selected **item** you can display plot of its characteristic curves and table of ... errors.

**Model**

3PLc ▾

**Type**
☑ $a$
☑ $b$
☑ $c$
☐ $d$

**Correction method**

None ▾

☐ Item purification

**DIF matching variable**

Standardized uploaded

41

## Plot with estimated DIF generalized logistic curve

Points represent proportion of correct answer (empirical probabilities) with respect to the DIF matching variable. Their size is determined by count of respondents who achieved given level of DIF matching variable with respect to the group membership.