

Package ‘irtawsi’

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Type Package

Title Items Response Theory Analysis with Steps and Interpretation

Version 0.4.1

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Description Dichotomous and polytomous data analysis and their scoring using the unidimensional Item Response Theory model (Chalmers (2012) <doi:10.18637/jss.v048.i06>) with user-friendly graphic User Interface. Suitable for beginners who are learning item response theory.

Imports DT, mirt, psych,
readxl,shiny,shinyWidgets,shinycssloaders,rmarkdown,bs4Dash,gt,diagram,writexl,mirtCAT,WrightMap

License GPL (>= 3)

Encoding UTF-8

NeedsCompilation no

URL <https://github.com/SusantoHP/irtawsi>

BugReports <https://github.com/SusantoHP/irtawsi/issues>

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Repository CRAN

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Description

Dichotomous and polytomous data analysis and their scoring using the unidimensional Item Response Theory model (Chalmers (2012) <doi:10.18637/jss.v048.i06>) with user-friendly graphic User Interface. Suitable for beginners who are learning item response theory.

Usage

```
irtawsi()
```

Value

No values are returned, launches 'shiny' interface

References

- Cai, L. & Monro, S. (2014). *A new statistic for evaluating item response theory models for ordinal data*. National Center for Research on Evaluation, Standards, & Student Testing. Technical Report.
- Chalmers, R., P. (2012). mirt: A Multidimensional Item Response Theory Package for the R Environment. *Journal of Statistical Software*, 48(6), 1-29. doi:10.18637/jss.v048.i06
- DeMars, C. (2010). *Item Response Theory*. doi:10.1093/acprof:oso/9780195377033.001.0001
- Guenole, N., & Brown, A. (2014). The consequences of ignoring measurement invariance for path coefficients in structural equation models. *Frontiers in Psychology*, 5. doi:10.3389/fpsyg.2014.00980
- Maydeu-Olivares, A. (2013). Goodness-of-Fit Assessment of Item Response Theory Models. *Measurement: Interdisciplinary Research & Perspective*, 11 (3), 71–101. doi:10.1080/15366367.2013.831680
- Maydeu-Olivares, A. (2014). Evaluating the Fit of IRT Models. In S. P. Reise & D. A. Revicki (Eds.), *Handbook of Item Response Theory Modeling* 129–145. Routledge. doi:10.4324/978131573601315
- Nguyen, T. H., Han, H.-R., Kim, M. T., & Chan, K. S. (2014). An Introduction to Item Response Theory for Patient-Reported Outcome Measurement. *The Patient - Patient-Centered Outcomes Research*, 7 (1), 23–35. doi:10.1007/s4027101300410
- Paek, I., & Cole, K. (2019). Using R for Item Response Theory Model Applications. *Routledge*. doi:10.4324/9781351008167
- Petersen, M. A. (2005). Introduction to Nonparametric Item Response Theory. *Quality of Life Research*, 14 (4), 1201–1202. doi:10.1007/s1113600512597
- Retnawati, H. (2015). Karakteristik Butir Tes dan Analisisnya. *Uny*, 53(5).
- Toland, M. D. (2014). Practical Guide to Conducting an Item Response Theory Analysis. *The Journal of Early Adolescence*, 34 (1), 120–151. doi:10.1177/0272431613511332
- Xu, J., Zhang, Q., & Yang, Y. (2020). Impact of violations of measurement invariance in cross-lagged panel mediation models. *Behavior Research Methods*, 52 (6), 2623–2645. doi:10.3758/s1342802001426z

Examples

```
if(interactive()){  
  ## Run this code for launching the Graphic User Interface  
  irtawsi()  
}
```

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