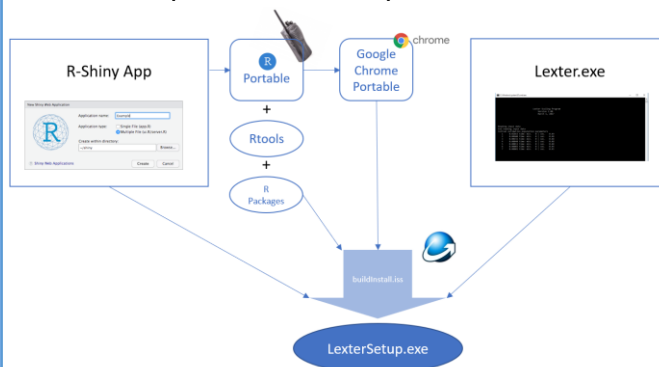# ShinyLexter app

An interface running 1PL, 2PL, 3PL GPCM models and multidimensional GPCM

shinylexter: structure

The figure below gives an impression of LexterSetup.exe and it's components.

shinylexter: installing and running

First download, unzip and install LexterSetup.exe. Check the box to create a Desktop icon. After this, one can open shinylexter with the followings steps:

1. Go to desktop and double click Lexter desktop icon
2. New window should open with ShinyLexter in Google Chrome portable

Note: Find Lexter in %LocalAppData%\Lexter

Open an existing .TTT, .xlsx, .lex file or specify a new run.

shinylexter and defining design

Two tabpanels are of importance to define the design: tabpanel "General" and "Booklets"

General

1. Enter a run name, data file and number of dimensions. Then, add the total number of items in your dataset and press "Apply"
2. In the 'Item Specification' table, your specified amount of items becomes visible
3. Specify your item labels – same as in your selected data file - and their characteristics in this table. Copying and pasting from another table is possible
4. Define data format, where can the program find:
   - The position of the booklet ID & it's length
   - The position of first item response & their lengthThe position of person ID & it's length and the position of first covariate
5. Recommended is to select a work directory, here you will find the output files generated later on

Booklets

The booklets tabpanel offers the possibility to specify the design of the booklets. Choose which booklet you want under 'Label'. Specify here which item ID's belong to that booklet and in which order. Add them in the same order as they appear in the Booklet. Select by dragging over the plot with circles. Then add them with the button 'Add items to booklet'. Adding a design can also through an Excel file.

The items then appear in the data table on the left, check if the order and item labels are correct.

shinylexter model and estimation

The tabpanels "Covariates", "Options", "Priors" and "Computational Criteria" will help you personalizing your run.
- Add a covariate as an ability distribution?
- What model & estimation method to use?
- Do you want person parameters estimated?

Please refer to the full Lexter manual on www.shinylexter.com for a description of all options. One can also run with the default settings.

shinylexter TTT file and lexter.exe

After having defined the design, having supplied the location of the dataset and working directory, and set the analysis (model) options and computational settings, a TTT file **can** be generated. This TTT file will be the input for Lexter.exe to start the analysis.

Press the following button the generate this file:

The final step left, after saving the ttt file is running Lexter.exe by pressing the following button:

The run will be either succesful or unsuccesful, have a look at the .MIR output file in your specified work directory to see the outcome files of the run.