## Extra work assignment

Note: Send answers and R script to martinkova@cs.cas.cz Name:

## 1 Introduction

Ex. 1.1 Read introduction of ShinyItemAnalysis manual which is available at

 $http://www.cs.cas.cz/martinkova/documents/manual\_L1.pdf$ 

and provide at least 5 extensions, additional references or editions.

## 2 Slides and HW assignments

**Ex. 2.1** Choose one of the lessons and read detaily its slides and HW assignment. Provide at least 5 extensions, additional references or editions.

## 3 Reliability and validity

**Ex. 3.1** Draw plot from slide 21 in slides of lesson 3. Prepare similar plot for restricted samples as it is displayed at slide 19.

**Ex. 3.2** Read article on Model-based inter-rater reliability estimate, see https://doi.org/10.1371/journal.pone.0203002. Simulate data from the article based on provided results and supplemental code. In the data, the collumns should represent: applicant ID, rater ID, school ID, internal/external status, rating on the 9 subcomponents. Additionally, further collumns may represent gender and criterions (experience, licensure score or VA).