

An introduction to explanatory IRT models

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Goals and topics

In this short course, we will start with an introduction to the most basic IRT model, the Rasch model, and explain the interpretation of the parameters. It will be shown from a bird's eye perspective how the parameters of the model can be estimated, including a discussion of the major advantages and disadvantages of the most common estimation methods. In a next step, the IRT models will be linked to the more well-known multilevel models. With this knowledge, it will be shown that the basic IRT models can now be extended in various directions: Multidimensionality, regression upon person and item covariates, etc. Because of the link with multilevel modeling, existing software can be used to estimate several models.

Prior knowledge

Participants are expected to have a basic understanding of inferential statistics, regression models and multilevel models. No advanced math is required for this course.