



## Item Response Theory in WinBUGS using *BayesianModeling* software

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This article aims to provide an introduction on the theory and practical analytic skills in fitting several Item Response Theory (IRT) models. IRT theory is explained with special emphasis on bayesian approaches using MCMC methods. A worked example is used to illustrate our proposal. This example contains step-by-step guides on using the statistical languages R and WinBUGS to fit the IRT models. IRT model codes are obtained considering *BayesianModeling* software (Bazán, 2011). With this work, we want to encourage to professionals from the different areas of knowledge to apply IRT models in the re-analysis of existing data and for its application in future research.

**Keywords:** Item Response Theory; WinBUGS; Bayesian inference; Link function; MCMC methods.