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## INVESTIGATION OF MEASUREMENT PRECISION OF LATENT VARIABLES IN EDUCATION

**Abstract.** *The objective of the study is to investigate the measurement accuracy of latent variables depending on a number of dichotomous test items and variation range.*

*Methods:* Investigation is based on the simulation experiments.

*Results:* The authors make recommendations for selecting a number of dichotomous test items and variation range depending on the required measurement precision of latent variables.

*Scientific novelty:* The research demonstrates statistical correlation between the measurement precision of latent variables and a number of test items and variation range.

*Importance for practice:* The research results can be used while developing the questionnaires and tests for measuring the latent variables.

**Keywords:** latent variable, Rasch model, measurement precision, dichotomous items, simulation experiment.

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