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### **Objective Measurement and Modeling of the Latent Variables in Education**

*Abstract.* The paper discusses the problem of objective assessment of the latent variables in education. The search for and approbation of the measurement methods adequate for social spheres – including education – is an urgent and relevant task. The author justifies the selection of the Rasch model as a methodological instrument for objective assessment of the latent variables both in social and humanity spheres, and summarizes the implementation experience regarding the assessment of academic achievements of high school leavers in mathematics.

In spite of the advantages of the Rasch model, the author draws our attention to the limits of its practical application. However, the experimental results indicate the model's capability to estimate the academic achievements and education quality. The model gives a valid statistical picture regarding the level of estimated latent variables, and therefore, provides the basis for future predictions and detailed diagnosis of the present.

*Keywords:* modern test theory, measurement of latent variables, Rasch model, level of academic achievements.

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