

seen in Table 1, the managers had an average t-score on neuroticism about one SD below the norm group, and a score on extraversion and conscientiousness both about one SD above the norm group, and a score on openness and agreeableness which is more or less around the mean for the norm group, confirming results found in previous research (Salgado 1997). A correlation analysis between the performance measures and the FFM resulted in only three significant correlations out of 30 possible combinations (Table 2 and 3). The results indicates that the FFM might not be suitable to use to distinguish top talents from a group of successful managers, indicating that personality tests are better used in the first phase of the selection process. The findings also suggest that the higher score not necessarily is the better. Having a t-score between 50 and 70 on extraversion and conscientiousness and a t-score between 35 and 45 on neuroticism seems ideal.

Factor Structure of the Czech version of the Intelligence and Development Scales

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The Intelligence and Development Scales - IDS (Grob, Hagmann-von Arx, Meyer, 2009) is a complex intelligence test for children (5 to 10 years). IDS consists of 19 subtests (21 in the Czech version) and focuses on 6 functional areas - Cognition, Psycho-Motor Skills, Social-Emotional Competences, Mathematics, Language, and Achievement Motivation. This study is a part of a broader standardization study of IDS, which involved 1455 children. The goals of this study are 1) to compare the factor structure of the original and Czech version, and 2) to verify meaningfulness of dividing the verbal and nonverbal subtests into 2 factors, which is based on the tradition of testing by Wechsler tests. To achieve both confirmatory factor analysis (maximum likelihood) was used. The four-factor structure (Extended Cognition, Psycho-motor Skills, Social-emotional Competence and Achievement Motivation) was confirmed. This structure, except for minor differences, corresponds with the original version. Two-factor solution (Verbal and Non-verbal Cognitive Abilities) was proved to be acceptable, but high correlation of these two latent variables ($r = 0.88$) has been found. Factor validity of the Czech version of the IDS was proved. Moreover, our results bear important consequences for consulting practice and interpretation of intelligence test results. High correlation between latent variables Verbal and Nonverbal cognitive abilities suggests that in the general population the verbal and nonverbal subtests of IDS measures two sides of the same disposition rather than two different abilities.

Validity Analysis of the Value-Added Indicators for Polish Schools

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Assessment of school effectiveness requires good measurement tools. One such a tool - value-added indicators (or educational value-added - EVA) – is being developed in Poland. To ensure reliable and valid school effectiveness assessments EVA undergoes ongoing improvement and extensive quality check based on the following areas: verification of properties of achievement tests, adequacy of the statistical model, and validity of EVA estimates. The aim of the study was to assess the validity of EVA indicators for Polish lower secondary schools (LSS). We assumed that school effectiveness correlates with numerous processes and phenomena related to

students' social, emotional and cognitive development. Thus, we expected EVA estimates to correlate with pupils' relative intellectual growth during lower secondary schooling. We used data collected during two waves of the study on the development of EVA models conducted by Educational Research Institute (Poland). We analyzed data of over 5200 students from 291 classes and 150 schools gathered when pupils were in grade 1 and 3 of LSS (two intelligence measurements, controlled variables). Additionally, we acquired the results of national external examinations carried out just before the first grade (at the end of the primary school) and at the end of the third grade. It allowed us to estimate students' absolute and relative intelligence gains as well as to compute EVA indicators for sampled schools and to establish the status of the relationship between EVA indicators and students' intellectual development. The analyses indicated the existence of a correlation between EVA indicators and relative mean intelligence gains among students. The results support validity of Polish EVA indicators and prove utility of the chosen study design in checking their quality. They also give insight into patterns of human intellectual development.

Estimation of Reliability Coefficient for Ordinal Scale of Measurement: Scale on Study Skills and Strategies

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The most important psychometric properties of measurement instruments are the reliability and validity. There are many different ways to come up to their estimation, from considering conceptual and epistemological aspects until questions related properly speaking with the Classical Test Theory, from where addresses. Nevertheless, it is very common estimate the reliability coefficient based on internal consistency of these using the coefficient alpha de Cronbach, regardless of the measurement level of the variables and items who compose the scale. The aim of this study is to compare three methods for estimating the Reliability coefficient, with the goal of show that, in spite of the Alpha of Crombach is used almost indiscriminately, without regard to aspects like the measurement level of the variables, there are other more appropriate ways for the estimation of the reliability coefficients in the case of scales composed of ordinal items, as the Alpha Ordinal Coefficient and the Theta Ordinal. Both of them use the correlation polichoric matrix in the estimation (Sitjtsma, 2009). In order to achieve this objective, we estimate the three reliability coefficients pointed out previously in a adaptation of the Scale on Study Skills and Strategies- LASSI (Likert scale). The results show that the use of ordinal coefficients for the estimation of reliability with this type of scales, while taking into account the correct measurement level, offer higher values than those obtained with the traditional alpha (alpha Cronbach: 0,88; alpha ordinal: 0,93; theta ordinal: 0,92). The main conclusion of this study reinforces the idea of taking into account different levels of measurement for variables or items that are part of the measurement instruments when we select the procedure to estimate the reliability coefficient, inasmuch as it is not only more correct from the psychometric point of view but also we achieve that the coefficient rises.