

Psychometric Properties of Travelers Personal Questionnaire

Jelena Kolesnikova¹, Jelena Levina² and Tatjana Turilova-Miscenko³

¹Riga Stradins University, Riga, Latvia; ²International Higher School of Practical Psychology, Russia;

³University of Latvia, Riga, Latvia

e-mail: jkolesnikova@inbox.lv

The purpose of this research was to develop the Russian version of Travelers Personal Questionnaire (TPQ) that measures travelers' personal characteristics and to determine its psychometric properties. The TNQ was developed for travelers with native Russian language from different countries: Russia, the Baltic states, Belarus, Ukraine. The sample consisted of 160 participants aged from 18 to 68 years ($M = 31.17$, $SD = 9.29$) (male – 44%, female – 56%). The factorial validity of the TPQ was established using principal components analysis with varimax rotation; this yielded five factors: Social Impact ($k = 6$), Dependence ($k = 6$), Sensation Seeking ($k = 7$), Conservatism ($k = 6$), Sociability ($k = 5$). All the TPQ scales had high internal consistency (Cronbach's alpha varied from .79 to .84). The reaction and discrimination indices satisfied the accepted psychometric criteria. The psychometric properties of TNQ satisfied criteria. The further stage of TNQ development would be the confirmatory factor analysis in broader international sample, the concurrent and convergent validity establishing, and test-retest reliability examination.

Differential Item Functioning across Test Versions

Maciej Koniewski, Przemysław Majkut and Paulina Skórska

Educational Research Institute, Warszawa, Poland

e-mail: maciej.koniewski@uj.edu.pl

In Poland national exams are administered to students finishing primary school (13 y.o.), lower secondary (16 y.o.), and higher secondary school (19-21 y.o.). The first high stake exam is being administered after lower secondary school. In these pen and paper exams, the test is delivered in two test forms to reduce the risk of cheating. Both test forms share the same items, but the sequence of options for the multiple choice items differ across forms. The study aims to assess differential item functioning (DIF) across the test forms. During the item and response analyses we observed unexpected differences in students performance across two test forms. The biggest differences were observed for items bundled in testlet, where the correct answer pattern for items within a testlet are marked with the same key (e.g., A, A, A) in one version and in the alternative booklet the key pattern is mixed (e.g., A, B, C). The two test forms could be viewed as theoretically parallel in terms of test items, but that difference in key patterns might influence students' performance on the items. DIF analyses across different forms of test booklets were performed on 2013 data from version A and B of 'The history and knowledge about society' test in lower secondary schools in lubelskie, malopolskie and podkarpackie voivodeships ($n = 81\,545$). To detect DIF, the Mantel-Haenssel test, logistic regression and standardization were used. Methods of DIF visualization were demonstrated. Results indicated meaningful differences in items functioning across test forms, especially when the pattern of keys on items bundled in testlet were marked with the same symbol. Such a pattern has been named an 'anti-pattern', because test takers might consider such response pattern very unlikely and in consequence provide wrong answers. Findings of this study would provide important guidelines for test development.