

## **Primary and Secondary Education: Validating a Spelling and Language Aptitude Test for Adolescents Using Item Response Theory**

R.D.C. Niroshinie  
University of Colombo, Sri Lanka  
rdcniroshinie@yahoo.com

An appropriate methodology to identify aptitude of adolescents has not been found so far in Sri Lanka. Therefore, the main objective of this study was to fulfil above requirement by validating a test to measure differential aptitude of late adolescents. Thus, the intention of the differential aptitude test was to help adolescents to identify their aptitude to select subjects, courses, training programmes or a career path. After reviewing the literature, the test was confined to six main differential aptitudes. This abstract presents the validation of the sub scale of spelling and language. The test blueprint was prepared after defining spelling and language aptitude. Next, items were constructed. A few items were discarded and refined according to the comments of the subject experts. The sample of the study was Sinhala medium grade 11 students in Western province. Data was collected from 1AB, 1C and type 2 schools using stratified random sampling method. The first pilot test (n=30) was to identify the defects of the items and vague instruction. The second(n=120) was to identify any defects in items further and calculate facility indexes to arrange the items according to the difficulty level. The intention of the third pilot (n=712) was to validate items. In validating items, conquest software was used which is based on Item Response Theory (IRT). In selecting more suitable items, item fit statistics, difficulty index, average ability measure, item characteristics and distractor curves of each item were considered. The final test consisted of 20 items. Test retest method (n=160) was used to assess the reliability(r=.90). Calculated Croanbach  $\alpha$  of the scale was .92.The factor analysis was done to confirm the construct validity of the test. Thus, it can be concluded that the test of Spelling and Language aptitude having appropriate reliability, validity and practicability. Therefore, the test can be used to identify Spelling and Language aptitude in grade 11 students.

**Keywords:** Item Response Theory; spelling and language aptitude; validate