Abstract

Dyslexia and other reading disorder concepts are used to describe the difficulties of children who cannot read, despite their cognitive capacity and after having spent a long period of learning and practicing. This paper evaluates the neuropsychological performance in NEPSY subtests and the differences between dyslexic and reader children. The evaluation involved a sample of 30 children: 1) control group of 10 reader children; 2) group of 10 children with low probability of being diagnosed as dyslexic; and 3) group of 10 children with probable and very probable dyslexia, according to the criteria of Bongo Test. Comparing group 1 to 3, the 20 subjects are correctly classified in the expected group by discriminant analysis, but the Stepwise Wilks’ lambda method only selects 6 of the NEPSY subtests: Oromotor Sequences (better performance of the of readers children) and Fingertip Tapping, Visuomotor Precision, Finger Discrimination (non preferred hand) Arrows, and Route Finding (better performance of dyslexic children). Despite all, the MannWhitney rank-sum U tests point significant differences between groups in Tower, Knok and Tap, and Manual Motor Sequences (better performance of reader children), and Finger Discrimination-non preferred hand (better performance of dyslexic children). Finally, multiple regression analysis carried out with the NEPSY subtests as predictor variables and each one of the reading Bongo test as dependent variables, with the sample of two groups of dyslexic children (n =20), select different NEPSY variables for each dependent Bongo Literacy Test: Spelling mistakes, writing errors, reading time, reading errors, and reading comprehension.

Keywords
Neuropsychology, dyslexia, childhood disorders, NEPSY.