Assessment of Dyslexia in the Urdu Language

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Appendix

Overview of the tests

Functions/ Factors	Tests	No. of Items	Description and Administration of tests
Letter Identification	Letter-Name Knowledge	20	Active Naming (Child sees the letter and has to tell the name of that letter)
Phonemic Awareness	Letter-Sound Knowledge	20	Passive Naming (Investigator says the sound and child has to point towards the correct letter) Both these tests provide give accuracy scores.
Phonological Awareness, Sound-blending, Retention	Phoneme and Syllable Deletion	30	In this test, the investigator asks the child to delete either the initial, middle or final phoneme/syllable of an orally presented word and then produce the remaining word. This is the only oral test in the battery. It consists of 30 items, ten items each for initial, medial and final phoneme and/or syllable deletion. In all the three sets, words are equally represented in terms of one, two and three syllables. This test provides accuracy scores.
Reading	Word Pairs (Letter Position)	25 25	Taps the ability to code the order of letters in words by reading words in which the initial, middle or final letters have been swapped around. Testing material consists of 50 words, in the form of 25 pairs making two individual lists of words. Child reads list one first (25 words, including one word from each pair) and then list two. This test provides accuracy scores as well as reading speed (measured over the whole list).
Decoding Skills (Letter-Sound)	Pseudoword Reading	30	Gauges knowledge of the relationship between Urdu letters and sounds. Child reads aloud 30 pseudowords that cannot be read by whole-word recognition. These pseudowords are presented with vowel markers (diacritics), so that the children have the information to read the words aloud correctly as long as they know the correspondence rules. The words are ordered in terms of difficulty level (1, 2 or 3 syllables). This test provides accuracy scores and also reading speed.
Visual-word Recognition	Word Reading (1 reading possibility)	30	Checks whole-word recognition skills. Child reads 30 words aloud. Words included are without their vowel markers (diacritics) so they cannot be read correctly unless the child is familiar with the word. There is only one correct pronunciation of each word included in this test. Half of the words are high frequency words and half low frequency words. The words are also ordered in the test according to their difficulty level. There are ten items with one, ten with two and ten with three syllables. Out of the ten words in each category of syllables half of them are high frequency and half low frequency words. This test provides accuracy scores and also reading speed.

	Words without Diacritics (2 or 3 reading possibilities) Words with Diacritics	30 30	It gauges child's choice of route to process words with and without complete phonological information (inclusion or exclusion of diacritics respectively). This test consists of 30 words once presented without and again with diacritics in random order. So, there are two lists consisting of (1) words with diacritics (only one possible reading due to diacritic markers) and (2) the same words without diacritics, each having 2 (or 3) possible readings. This test provides accuracy scores and also reading speed.
Spelling skills	Words Pseudowords	15 15	Assesses child's spelling abilities. Investigator says the word and child writes it down on a blank sheet of paper. There are total 30 words in this test, 15 are words, arranged in the order of difficulty (1,2 and 3 syllables) and remaining 15 are matching (same no. of syllables) pseudowords with diacritics. Five words have single syllable, another five have two syllables and remaining five are three syllable words. For word spelling section, in each category of syllables, high and low frequency words are included. This test only provides accuracy scores.
Word-Meaning Knowledge	Vocabulary	62	This test assesses knowledge of the meanings of words. It consists of 62 items. Each item consists of four pictures. The test administrator says the word aloud and the child has to point to the correct picture. Out of the four pictures (pasted on one page), one is the target picture and rest are: a phonological distracter (having the same initial phoneme as target word), a semantic distracter (having similar meaning as target word) and an unrelated picture. This test gives accuracy scores.
Rapid Automatized Naming (RAN)	Colours Objects Digits English Digits Urdu	35 35 35 35	This test involves rapid naming of four stimuli sheets one-by-one, as accurately and as quickly as possible. Four stimuli sheets are of colours, objects and digits (one for English, one for Urdu). Both the digit sheets include numbers from 1-9 and are presented in different order in both sheets. This test only provides accuracy scores.

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