

## Supplementary Materials Table S1

### Wireless EEG system for neurofeedback training

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**Table S1.** Psychological results of the groups in standard scores.

<b>1. DDE-2 Test</b>	<b>Dyslexics mean <math>\pm</math> s.d</b>	<b>Controls mean <math>\pm</math> s.d</b>
1.1.Word reading		
Accuracy	90.6 $\pm$ 4.5	106 $\pm$ 5.58
time	91.7 $\pm$ 4.8	132 $\pm$ 0.76
1.2.Pseudo-word reading		
Accuracy	88.3 $\pm$ 4.4	102 $\pm$ 4.65
time	96.7 $\pm$ 4.1	118 $\pm$ 0.68
1.3 Homonyms		
Accuracy	98.5 $\pm$ 2.4	112 $\pm$ 4.82
1.4 Spelling		
Accuracy	112 $\pm$ 4.45	112 $\pm$ 1.82
1.5 Word writing		
Accuracy	85.7 $\pm$ 4.4	115 $\pm$ 6.49
1.6 Pseudo-word writing		
Accuracy	91.9 $\pm$ 3.9	104 $\pm$ 4.25
1.7 Dictation		
Accuracy	89.5 $\pm$ 3.4	112 $\pm$ 4.82
<b>2. Psychometric tests</b>	<b>Dyslexics mean <math>\pm</math> s.d</b>	<b>Control mean <math>\pm</math> s.d</b>
2.1 Dictation		
Correct sentences	10.94 $\pm$ 4.51	21.00 $\pm$ 5.85
2.2. Text reading		
Correct answers	119.75 $\pm$ 7.88	129.41 $\pm$ 3.43
time (s)	191.56 $\pm$ 149.55	104.77 $\pm$ 29.00
2.3 Phological task		
Without the first sound		
Correct	5.52 $\pm$ 2.04	9.20 $\pm$ 1.87
time (s)	62.5 $\pm$ 29.4	34.86 $\pm$ 10.57
2.4 Phological task		
Without the last syllable		
Correct answers	6.15 $\pm$ 2.38	8.05 $\pm$ 2.08
time	64.84 $\pm$ 30.5	37.50 $\pm$ 8.81
3. Girolami-Bolinier		
Correct answers	50.9 $\pm$ 9.2	
4. Raven test	> 98	> 98

Data are expressed as the mean  $\pm$  SD. One hundred-eight children: 72 children with dyslexia (52 boys and 20 girls, age 8.76  $\pm$  0.53 years) and 36 normal children (26 boys and 10 girls, age 8.8  $\pm$  0.36 years) from a

second grade of four primary schools located in the urban community of middle-level socio-economic status in Sofia, Bulgaria. The study was conducted in the schools. The children had a normal or corrected-to-normal vision after an examination by an ophthalmologist. All participants in the study spoke Bulgarian as their first language and were right-handed.

The school children pass through neuropsychological tests [1]. Psychological test battery DDE-2 was applied to examine developmental dyslexia [2,3]. Psychometric tests were used to assess reading, writing skills and phonological awareness [4]. For the children with learning difficulties, not only the Raven test for nonverbal intelligence "Progressive Matrices" [5] but also the Girolami-Boulinier test for non-verbal perception "Differently Oriented Marks" [6,7] was applied.

The first language of the participants was Bulgarian. The classification of hand preference [8] showed that all children had right-hand preferences. They were with normal or adjusted to normal vision. They scored  $\geq 98$  points in their nonverbal intelligence test [5]. Children who had difficulty reading, along with accuracy or speed in reading subtests of the DDE-2 battery and the "Reading Abilities" battery below the norm with a standard deviation of standardized data of normally reading children were included in the dyslexic group [4]. Children, participating in the study as controls, were recruited from the schools of the dyslexics. They were of the same age and socio-demographic background as the dyslexic group. They did not have dyslexia and concomitant language disorders, according to the accuracy and speed of reading in DD2 tests.

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