

**Supplemental Table S2.** Individual subject performance in the tDCS-first and sham-first groups on a comprehensive assessment battery at pre-treatment, with data organized from most to least impairment on a sound blending task (APB). Values reported in percent unless otherwise indicated.

Task (score type)	tDCS-first						Sham-first					
	NF 415	LV 416	LV 419	LV 408	LV 412	LV 421	LV 409	LV 413	LV 418	LV 410	NF 422	NF 424
<u><b>Naming</b></u>												
Boston Naming Test (Raw)	39	9	11	55	23	34	28	4	32	24	59	55
<u><b>Phonological Tasks</b></u>												
Rhyme Production	70	20	70	90	100	100	60	80	90	90	40	100
Sound Segmentation (spoken)	48	20	80	95	100	98	33	60	75	68	75	98
Sound Segmentation (written)	65	13	70	95	80	95	<i>nt</i>	<i>nt</i>	83	75	93	98
Sound Deletion	55	20	75	100	95	90	35	10	25	75	80	100
Sound Blending	10	20	40	50	65	90	0	15	20	40	45	95
Sound Replacement	10	0	33	47	40	67	7	0	0	30	23	73
<u><b>Semantic Processing</b></u>												
Camel and Cactus Test	84	47	75	83	61	80	22	69	81	59	84	84
Peabody Picture Vocabulary Test (Scaled)	103	82	99	97	99	106	86	85	105	98	128	99
Spoken Word-Picture (P47)	98	95	93	100	88	98	<i>nt</i>	88	100	100	100	100
Written Word-Picture (P48)	100	75	100	100	85	95	88	80	100	95	98	100
Synonym Judgement (P49)	78	50	77	93	87	100	85	85	93	83	95	95
<u><b>Orthographic Recognition</b></u>												
Visual Lexical Decision (P25)	100	100	82	100	98	100	88	72	98	95	97	100
<u><b>Phonology-Orthography Transcoding</b></u>												
Letter-to-Sound	50	65	90	95	95	95	30	75	100	95	80	85
Sound-to-Letter	55	85	85	90	65	100	<i>nt</i>	<i>nt</i>	90	80	100	90
Reading CVC Nonwords	45	80	70	85	90	100	45	5	95	80	95	90
Spelling CVC Nonwords	5	50	40	80	65	85	<i>nt</i>	<i>nt</i>	45	15	80	80
<u><b>Syntactic Processing</b></u>												
Sentence Production Priming	47	20	100	93	87	100	3	17	23	13	80	100
Sentence Comprehension	83	53	100	100	93	100	57	77	80	93	97	100
Argument Structure Production	78	47	80	94	84	86	42	91	100	80	84	98
Verb Naming	82	50	68	95	91	82	64	50	82	82	86	91
<u><b>Auditory Processing</b></u>												
Rhyme Judgement (P15)	68	45	98	100	100	98	48	100	93	73	75	100

Minimal Pair Judgement (P1, P2)	75	90	100	98	98	100	78	98	93	98	100	75
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### Visual-Orthographic Processing

Letter Reversal (P18)	100	89	100	100	100	100	86	94	100	100	100	100
Case Matching (Lower-Upper, P19)	100	100	100	100	100	100	73	100	100	88	100	100
Case Matching (Upper-Lower, P20)	100	88	100	100	100	100	77	100	100	100	100	100

### Speech Production

Repeat Words	100	100	100	<i>nt</i>	<i>nt</i>	100	<i>nt</i>	100	100	<i>nt</i>	100	100
Repeat Nonwords	65	95	100	100	100	100	<i>nt</i>	85	95	75	100	100
Children's Nonword Repetition Test	28	70	80	95	88	95	68	90	58	70	58	83
Apraxia of Speech Rating (/3)	3	0	0	0	0	0	1	0	2	0	0	0

### Handwriting

Lower-to-Uppercase Conversion	100	96	88	<i>nt</i>	<i>nt</i>	88	<i>nt</i>	38	100	<i>nt</i>	100	92
Upper-to-Lowercase Conversion	92	77	100	<i>nt</i>	<i>nt</i>	100	<i>nt</i>	27	100	<i>nt</i>	100	100

### Oral Reading

Words	73	83	80	98	100	98	88	78	98	95	98	95
Nonwords	45	90	65	90	80	95	45	20	95	65	100	85
Regular	80	100	85	100	100	100	85	85	100	95	95	100
Irregular	65	65	75	95	100	95	90	70	95	95	100	90

### Written Spelling

Words	83	35	58	<i>nt</i>	<i>nt</i>	88	<i>nt</i>	<i>nt</i>	75	<i>nt</i>	95	93
Nonwords	5	15	70	65	70	90	<i>nt</i>	<i>nt</i>	70	40	100	90
Regular	85	55	75	<i>nt</i>	<i>nt</i>	95	<i>nt</i>	<i>nt</i>	75	<i>nt</i>	100	100
Irregular	80	15	40	<i>nt</i>	<i>nt</i>	80	<i>nt</i>	<i>nt</i>	75	<i>nt</i>	90	85

### Written Narrative (WAB Picnic Scene)

Correct Information Units (CIUs) (Raw)	52	38	53	<i>nt</i>	19	38	<i>nt</i>	<i>nt</i>	82	26	24	139
Informativeness (CIUs/Words)	91	84	79	<i>nt</i>	76	84	<i>nt</i>	<i>nt</i>	95	93	92	97
CIU Spelling	96	84	94	<i>nt</i>	68	76	<i>nt</i>	<i>nt</i>	97	65	100	97
Writing Accuracy	86	70	75	<i>nt</i>	46	58	<i>nt</i>	<i>nt</i>	93	61	92	94
Grammatical Sentences	17	38	43	<i>nt</i>	0	29	<i>nt</i>	<i>nt</i>	70	0	100	77

### Overall Cognition

Montreal Cognitive Assessment (Raw/30)	24	7	13	23	15	25	9	6	16	6	19	21
Montreal Cognitive Assessment (w/o language, Raw/19)	16	5	12	16	11	15	8	6	12	5	14	14

### Executive Function

Trail-Making (Number-Letter Switching, Scaled)	1	1	9	2	2	1	2	1	5	2	1	9
Digit Span Forward (Span)	5	4	6	7	10	8	8	5	5	7	7	11
Digit Span Backward (Span)	2	3	3	4	4	4	3	3	3	3	2	4
<u>Visuospatial Processing</u>												
Symbol Cancellation	97	95	100	97	60	97	33	28	100	77	98	93
Complex Figure – Immed Recall (Scaled)	17	3	11	11	4	9	0	5	5	5	17	7
<u>Episodic Memory</u>												
Memory for Faces	90	56	78	66	70	82	54	68	88	78	80	80
Memory for Words	90	36	74	<i>nt</i>	<i>nt</i>	96	<i>nt</i>	68	76	<i>nt</i>	78	86
<u>Nonverbal Problem-Solving</u>												
Raven's Coloured Progressive Matrices	86	47	92	<i>nt</i>	<i>nt</i>	81	<i>nt</i>	61	83	<i>nt</i>	94	72

nt = not tested