

**Table S1.** De Ajuriaguerra E Scale.

	<i>Item</i>	<i>Points</i>	<i>Coeff. Pond.</i>	<i>TOT</i>
<b>EF</b>				
F1	Superficial writing, immature	2		
F2	Dodue writing (distended, chubby)	1		
F3	Without movement	2		
F4	High caliber	2		
F5	Calligraphic "m" and "n"	2		
F6	Calligraphic "t" cuts	2		
F7	Calligraphic "p" letter	1		
F8	"a" letter in two traits	3		
F9	"d", "g", "q" letters in two traits	2		
F10	Capital letters drawn in a clumsy way	3		
F11	Sutures	3		
F12	Collages	1		
F13	Irregular space between lines	3		
F14	Undifferentiated zones	2		
<b>EF TOT</b>				
<b>EM</b>				
M15	Descending trait interrupted or picked up	3		
M16	Letters with touch-up or corrections	3		
M17	Tethered array with smears	3		
M18	Rod deviations of "d", "t", "p", q"	1		
M19	Dented loops	3		
M20	Awkwardness of loop "g", "f" etc	2		
M21	Tremor	3		
M22	Shaking layout	2		
M23	Snap writing	2		
M24	Crowded letters	2		
M25	Broken line	2		
M26	Sinuous line	1		
M27	Descending line	1		
M28	Dancing words on the line, snapping	2		
M29	Dimension irregularity	3		
M30	Direction irregularity	1		
<b>EM TOT</b>				

**Table S2.** De Ajuriaguerra D Scale.

		<i>Score</i>	<i>Coeff. Pond.</i>	<i>Score tot.</i>
<b>Wrong use of space</b>				
D1	Dirty and tethered array	1		
D2	Broken line	1		
D3	Rolling line	2		
D4	Descending line	1		
D5	Packed between words	2		
D6	Irregular space between words	1		
D7	Absence of margins	1		
<b>Awkwardness</b>				
D8	Poor trait	2		
D9	Retouched or corrected letters without reason	2		
D10	Loops filled with ink	1		
D11	Twisting in the median zone	1		
D12	Sharp arcades	1		
D13	Sutures or weldings	2		
D14	Collages	1		
D15	Crowded letters	3		
D16	Snap writing	2		
D17	Slender finals related to awkwardness	2		
D18	Dimension irregularity	2		
D19	Bad differentiated zones	1		
D20	Atrophied letters	2		
<b>Mistakes in form and proportion</b>				
D21	Structured or tenuous letters	2		
D22	Poor shapes	1		
D23	Too little or excessive dimension	2		
D24	Bad ratio between zones	2		
D25	Too distended or packed writing	1		
<b>TOT score</b>				

**Table S3.** Results of sEMG measurements performed in 14 dysgraphic and 5 non-dysgraphic patients enrolled in the study.

Muscle	Parameter	Side	Dysgraphic patients (n=14)	Non-dysgraphic patients (n=5)	p value
			Median value (IQR)	Median value (IQR)	
Biceps	Resting tonus, $\mu$ V	D	1.4 (1.0-1.9)	0.9 (0.7-1.5)	ns
		ND	1.3 (1.1-1.6)	1.0 (0.6-1.4)	ns
	Mean isometric contraction, $\mu$ V	D	164 (74-222)	38 (20-81)	0.01
		ND	116 (74-189)	29 (20-124)	0.03
	Mean concentric contraction, $\mu$ V	D	17 (11-37)	10 (6-39)	ns
		ND	18 (10-41)	8 (6-35)	ns
	Correlation coefficient	D	0.8 (0.6-0.9)	0.7 (0.6-0.9)	ns
		ND	0.7 (0.4-0.8)	0.5 (0.3-0.8)	ns
Triceps	Resting tonus, $\mu$ V	D	1.3 (1.0-1.8)	1.0 (0.9-1.8)	ns
		ND	1.5 (1.2-1.6)	1.2 (1.0-1.7)	ns
	Mean isometric contraction, $\mu$ V	D	66 (54-79)	72 (44-127)	ns
		ND	62 (37-82)	48 (22-97)	ns
	Mean concentric contraction, $\mu$ V	D	27 (24-36)	33 (23-46)	ns
		ND	27 (19-36)	28 (17-37)	ns
	Correlation coefficient	D	0.8 (0.7-0.9)	0.8 (0.5-0.9)	ns
		ND	0.8 (0.6-0.9)	0.8 (0.7-0.9)	ns
Flexor carpi ulnaris	Resting tonus, $\mu$ V	D	1.5 (1.2-2.3)	1.4 (1.0-1.7)	ns
		ND	1.6 (1.1-2.0)	1.3 (0.9-1.6)	ns
	Mean isometric contraction, $\mu$ V	D	60 (37-96)	18 (5-83)	ns
		ND	53 (40-97)	52 (9-82)	ns
	Mean concentric contraction, $\mu$ V	D	30 (26-60)	11 (5-36)	ns
		ND	28 (17-54)	22 (6-56)	ns
	Correlation coefficient	D	0.9 (0.7-0.9)	0.7 (0.5-0.9)	ns
		ND	0.8 (0.7-0.9)	0.9 (0.7-0.9)	ns
Extensor carpi radialis	Resting tonus, $\mu$ V	D	1.7 (1.2-3.3)	1.4 (1.0-2.7)	ns
		ND	1.6 (1.3-2.7)	1.4 (1.0-2.5)	ns
	Mean isometric contraction, $\mu$ V	D	69 (49-107)	61 (37-129)	ns
		ND	75 (59-101)	19 (12-94)	ns
	Mean concentric contraction, $\mu$ V	D	56 (26-66)	55 (17-83)	ns
		ND	45 (28-66)	20 (11-64)	ns
	Correlation coefficient	D	0.7 (0.7-0.9)	0.8 (0.7-0.9)	ns
		ND	0.8 (0.7-0.9)	0.8 (0.7-0.9)	ns

D= dominant side, ND= non dominant side.