

Supplementary Tables

Supplementary Table 1

Descriptive data for the cognitive measures at pre- and posttest.

	Pretest					Posttest					Pre vs. Post		
	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>	<i>r</i>	<i>Cohen's d</i>	<i>BF₁₀</i>
N-back Group													
TONI	41	22.17	6.52	9	38	41	24.20	7.76	8	39	.76	0.28	3.06
SPM	41	16.95	4.32	3	24	41	17.37	4.53	6	26	.73	0.09	0.23
Following Instructions	39	4.16	1	2	6	41	4.37	0.91	2	6.50	.38	0.22	0.31
Digit Span	41	12.98	3.40	7	25	41	13.10	3.69	8	23	.75	0.03	0.18
2-back (hits-false alarms)	41	0.40	0.24	-0.13	0.93	41	0.59	0.27	-0.03	1	.48	0.74	683.57
CPT d'	39	1.87	1.03	0	4.01	41	2.28	1.29	0.02	4.54	.80	0.35	233.24
Math	41	36.07	6.14	25	51	41	36.95	5.98	24	51	.79	0.15	0.43
Reading Comprehension	40	28.73	5.24	18	42	40	29.46	4.65	18	39	.76	0.15	0.41
Reading Fluency	41	47.83	16.74	18	94	40	51.48	16.41	23	98	.91	0.22	3.26
Active Control Group													
TONI	39	21.56	7.23	7	42	39	22.15	7.62	9	39	.63	0.08	0.20
SPM	39	17.08	4.49	9	26	39	16.79	5.05	7	27	.78	-0.05	0.20
Following Instructions	39	4.08	1.07	2	6	39	4.10	1.03	2	6	.48	0.02	0.17
Digit Span	39	12.56	3.69	6	23	39	12.21	3.65	7	23	.82	-0.10	0.28
2-back (hits-false alarms)	39	0.34	0.22	-0.03	0.80	39	0.39	0.23	-0.37	0.77	.52	0.22	0.48
CPT d'	37	1.65	0.86	0	3.71	39	1.78	1.01	0.19	3.71	.73	0.14	0.59
Math	38	35.92	7.20	18	49	39	35.03	7.56	17	48	.88	-0.12	0.32
Reading Comprehension	35	28.29	5.90	11	37	32	28.77	7.24	13	43	.80	0.07	0.31
Reading Fluency	39	41.54	19.53	2	78	39	44.18	23.44	0	96	.91	0.12	0.60

Supplementary Table 2

Descriptive data for the cognitive measures at pre- and delayed posttest

	Pretest					Delayed Posttest					Pre vs. Delayed		
	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>	<i>r</i>	<i>Cohen's d</i>	<i>BF</i> ₁₀
n-back Group													
TONI	33	21.76	6.51	9	38	33	24.15	7.81	7	41	.64	0.33	1.84
SPM	33	16.15	4.21	3	24	33	16.97	4.90	7	26	.60	0.18	0.36
Following Instructions	31	4.17	1	2	6	33	4.35	0.95	2	6.25	.25	0.18	0.24
Digit Span	33	12.24	2.55	7	19	33	13.15	2.69	7	20	.67	0.35	1.03
2-back	32	0.34	0.22	-0.13	0.73	32	0.54	0.22	0.13	0.83	.43	0.91	185.92
CPT d'	30	1.92	0.84	0.48	3.59	31	2.33	0.99	0.34	4.54	.83	0.45	2.49
Math	33	36	5.53	26	47	33	37.67	5.68	27	50	.82	0.30	7.78
Reading Comprehension	32	28.25	5.08	18	36	33	30.67	3.76	21	39	.64	0.54	12.33
Reading Fluency	33	47.78	13.54	23	76	33	53.12	15.85	23	88	.79	0.36	19.14
Active Control Group													
TONI	31	22.87	7.51	9	42	31	25.23	7.60	7	43	.59	0.31	2.82
SPM	29	16.86	4.37	9	25	29	17.69	4.81	6	26	.76	0.18	0.40
Following Instructions	31	4.19	1.12	2	6	31	3.95	0.87	2	6	.53	-0.24	0.27
Digit Span	31	12.65	3.36	9	21	31	12.19	3.57	8	23	.83	-0.13	0.29
2-back	27	0.39	0.21	0	0.73	30	0.42	0.28	-0.03	0.90	.57	0.12	0.65
CPT d'	26	1.94	0.76	0	3.06	29	1.91	1.05	0	3.59	.50	-0.03	0.34
Math	29	36.90	7.05	24	49	30	36.87	8.06	23	52	.77	0.00	0.24
Reading Comprehension	26	29.81	4.98	17	39	27	30.35	5.27	20	41	.72	0.11	0.59
Reading Fluency	30	45.43	20.84	2	78	30	53.13	24.27	3	98	.89	0.34	89.66

Supplementary Table 3

Descriptive data for parent rating scales, including only participants who had data for both pretest and delayed posttest.

	Pretest					Delayed Posttest					Pre vs. Post		
	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>	<i>r</i>	<i>Cohen's d</i>	<i>BF</i> ₁₀
<i>n-back Group</i>													
CBCL													
Competence	26	44.62	9.14	32	70	26	43.38	9.75	28	63	.61	-0.13	0.27
Internalizing	26	54.15	9.54	41	73	26	53.35	11.30	34	71	.69	-0.08	0.22
Externalizing	26	53.69	11.19	34	73	26	52.69	10.06	40	76	.83	-0.09	0.28
Syndrome Scale	26	58.27	8.50	44	73	26	56.15	8.82	42	71	.86	-0.24	1.28
Attention Problems	26	67.15	8.32	53	90	26	62.38	5.90	52	76	.80	-0.66	411.02
Affective Problems	26	57.85	7.08	50	73	26	58.88	6.99	50	75	.66	0.15	0.30
Anxiety Problems	26	56.73	7.82	50	78	26	56.62	7.77	50	73	.69	-0.01	0.21
Somatic Problems	26	53.81	5.45	50	65	26	52.96	4.50	50	64	.38	-0.17	0.27
ADHD Problems	26	64.88	6.84	55	80	26	60.65	5.40	50	70	.60	-0.69	43.62
Defiant Problems	26	57.12	7.64	50	77	26	55.46	7.38	50	77	.81	-0.22	0.87
Conduct Problems	26	55.54	6.96	50	70	26	54.65	8.00	50	81	.88	0.40	0.39
School Problems	26	39.65	7.92	27	55	26	42.19	8.04	29	55	.82	-0.12	4.05
BRIEF													
Inhibition	21	19.00	5.67	11	29	21	17.62	4.98	10	27	.83	-0.26	1.17
Shifting Tasks	21	12.95	3.61	8	19	21	12.90	3.90	8	20	.84	-0.01	0.23
Emotional Control	21	16.57	4.68	11	26	21	16.38	4.73	10	30	.75	-0.04	0.24
Initiation	21	15.43	3.12	10	20	21	14.48	3.43	8	20	.81	-0.29	1.44
Working Memory	21	23.86	4.05	14	28	21	21.14	4.55	12	29	.69	-0.63	24.14
Planning/ Organization	21	25.57	6.28	12	33	21	24.67	5.62	14	34	.70	-0.15	0.33
Organization of Materials	21	14.10	2.57	10	18	21	14.10	2.90	7	18	.60	0	0.23
Task and Self-Monitoring	21	17.38	3.35	11	23	21	16.10	3.45	10	23	.67	-0.38	1.44
Behavioral Regulation	21	48.52	11.20	32	69	21	46.90	11.26	28	77	.80	-0.14	0.37
Metacognition Index	21	96.33	15.50	68	115	21	90.71	16.91	62	113	.80	-0.42	2.76
Global Executive	21	144.86	22.28	108	184	21	137.67	24.92	92	185	.81	0.30	1.70
Emotional Control	21	52.10	10.83	38	75	21	52.00	11.24	37	85	.73	0.01	0.24
Working Memory T-Score	21	68.90	9.61	45	83	21	63.67	11.71	40	83	.74	-0.49	12.82
Regulation T-Score	21	56.71	11.24	39	78	21	55.33	11.43	39	87	.79	-0.12	0.44
Executive Function	21	62.76	9.77	45	84	21	59.86	11.18	41	86	.84	-0.28	2.69

Connors													
Inattention Problems	25	21.00	7.38	8	35	25	15.92	15.925.	4	34	.70	-0.41	136.34
Hyperactivity	25	9.04	5.48	0	19	25	7.28	40	0	25	.73	-0.32	1.62
Opposition	25	8.24	6.11	0	18	25	7.16	7.10	0	22	.85	-0.16	0.52
Anxiety Problems	25	3.76	3.06	0	12	25	3.56	3.25	0	12	.62	-0.06	0.22
Perfectionism	25	3.00	2.45	0	8	25	2.68	1.91	0	7	.63	-0.15	0.29
Social Problems	25	3.48	2.65	0	11	25	3.56	3.75	0	14	.46	0.02	0.21
Psychosomatic Problems	25	1.36	2.20	0	8	25	1.56	1.98	0	7	.66	0.10	0.24
ADHD Index	25	21.60	6.39	7	32	25	16.44	7.03	4	29	.67	-0.77	306.91
Restless/ Impulsivity	25	9.52	3.58	2	16	25	7.76	3.54	1	16	.72	-0.49	12.80
Emotional Liability	25	2.32	2.72	0	9	25	1.68	2.01	0	8	.70	-0.27	0.70
DSM Inattentive	25	17.20	5.64	6	26	25	13.28	6.03	2	27	.68	-0.67	91.33
DSM Hyperactivity	25	10.88	6.12	0	20	25	8.08	5.48	0	24	.77	-0.48	20.76
<i>Active Control Group</i>													
CBCL													
Competence	21	42.05	9.45	28	58	22	43.18	10.69	28	72	.86	0.11	0.32
Internalizing	22	55.27	12.35	33	73	22	53.45	11.80	33	73	.85	-0.15	0.46
Externalizing	22	53.18	9.51	34	75	22	52.86	9.22	34	72	.84	-0.03	0.23
Syndrome Scale	22	59.91	8.45	43	73	22	57.64	9.12	39	73	.87	-0.26	2.15
Attention Problems	22	70.95	9.12	55	83	22	68.45	10.26	53	92	.53	-0.26	0.44
Affective Problems	22	61.41	8.14	50	75	22	59.18	7.27	50	75	.67	-0.29	0.71
Anxiety Problems	22	55.55	8.06	50	75	22	54.59	7.59	50	73	.85	-0.12	0.37
Somatic Problems	22	57.45	8.27	50	77	22	57.45	8.29	50	73	.78	0.00	0.22
ADHD Problems	22	65.64	7.77	52	80	22	64.45	8.20	52	80	.61	-0.15	0.29
Defiant Problems	22	55.77	6.11	50	70	22	55.41	6.06	50	70	.83	-0.06	0.25
Conduct Problems	22	55.23	7.08	50	77	22	54.59	6.16	50	73	.91	-0.10	0.35
School Problems	21	41.10	8.44	27	54	22	42.36	6.84	30	55	.70	0.16	0.26
BRIEF													
Inhibition	23	20.00	5.02	10	28	23	19.61	5.45	10	30	.84	-0.07	0.26
Shifting Tasks	23	14.78	3.36	9	19	23	14.13	3.20	8	19	.49	0.20	0.33
Emotional Control	23	17.26	4.83	10	26	23	16.74	4.37	10	26	.49	-0.11	0.25
Initiation	23	16.52	3.06	12	23	23	16.87	2.88	13	23	.53	0.12	0.26
Working Memory	23	25.61	3.31	19	30	23	24.17	3.33	18	30	.66	-0.43	2.84
Planning/ Organization	23	27.13	6.08	17	36	23	27.43	4.89	18	36	.71	0.05	0.23
Organization of Materials	23	15.48	2.69	11	18	23	14.78	2.89	9	18	.68	0.25	0.57

Task and Self-Monitoring	23	19.09	3.38	13	24	23	18.91	3.19	14	24	.83	-0.05	0.24
Behavioral Regulation	23	52.04	10.38	32	67	23	50.48	10.87	34	71	.66	-0.15	0.30
Metacognition Index	23	103.83	15.04	77	131	23	102.35	13.07	73	127	.79	-0.10	0.29
Global Executive	23	155.87	23.13	112	198	23	152.83	22.13	113	196	.75	-0.13	0.32
Emotional Control	23	53.09	10.37	36	71	22	52.91	10.23	37	71	.37	-0.02	0.25
Working Memory T-Score	23	73.04	7.55	58	89	22	70.45	8.71	54	89	.73	-0.32	1.55
Regulation T-Score	23	59.91	10.16	40	78	22	59.14	11.56	42	81	.67	-0.07	0.32
Executive Function	23	66.74	9.59	47	87	22	66.14	9.84	47	87	.79	-0.06	0.34
Connors													
Inattention	22	22.59	8.92	1	36	22	18.91	7.40	10	33	.66	-0.45	2.85
Hyperactivity	22	10.18	6.15	1	20	22	8.91	5.37	0	22	.76	-0.22	0.56
Opposition	22	8.36	6.21	0	24	22	7.41	4.86	1	17	.77	-0.17	0.39
Anxiety Problems	22	4.59	4.81	0	16	22	3.73	4.57	0	14	.91	-0.18	1.27
Perfectionism	22	2.27	2.19	0	7	22	2.00	1.48	0	6	.55	-0.14	0.28
Social Problems	22	4.09	4.29	0	13	22	3.14	3.56	0	13	.71	-0.24	0.56
Psychosomatic Problems	22	2.64	2.90	0	10	22	2.36	2.79	0	9	.82	-0.10	0.29
ADHD Index	22	23.27	7.81	8	33	22	19.18	7.42	8	34	.53	-0.54	3.18
Restless/ Impulsivity	22	11.59	4.45	2	19	22	9.27	4.67	2	18	.60	-0.50	3.62
Emotional Liability Index	22	1.95	1.89	0	7	22	1.68	1.64	0	5	.69	-0.15	0.32
DSM Inattentive	22	18.41	6.22	4	27	22	15.05	5.52	7	26	.49	-0.57	3.62
DSM Hyperactivity	22	11.73	6.94	0	23	22	10.05	5.74	1	23	.76	-0.26	0.80

Supplementary Table 4

Correlations of outcome measures at pretest, training gain, and gain scores from pretest to posttest for the training group

	1	2	3	4	5	6	7	8	9	10	11
1 CPT d' Pretest	1										
2 CPT Errors of Commission Pretest	-.93**	1									
3 Working Memory Pretest	.44**	-.33*	1								
4 School Tasks Pretest	.29	-.12	.75**	1							
5 Reasoning Pretest	.32*	-.16	.45**	.56**	1						
6 Training Gain	.16	-.05	.34*	.16	.09	1					
7 CPT d' Gain	-.05	.02	.30	.24	-.13	.32	1				
8 CPT Errors of Commission Gain	.07	-.07	-.40*	-.38*	.06	-.34*	-.86**	1			
9 Working Memory Gain	.26	-.25	-.31	-.06	.12	-.10	-.11	.26	1		
10 School Tasks Gain	.31	-.33*	-.08	-.50**	-.28	.21	-.12	.23	-.06	1	
11 Reasoning Gain	-.25	.19	.16	.11	-.30	.26	.22	-.30	-.18	.07	1

Note: CPT = Continuous Performance Task

Supplementary Table 5

Correlations between outcome measures at pretest, training gain, and outcome measure gains from pretest to delayed posttest

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	CPT d' Pretest	1																
2	CPT Errors of Commission Pretest	-.93**	1															
3	Working Memory Pretest	.44**	-.33*	1														
4	Inattention & Hyperactivity Pretest	-.22	.20	-.28	1													
5	Opposition & Defiance Pretest	-.13	.10	-.24	.58**	1												
6	EF Pretest	-.24	.10	-.24	.71**	.59**	1											
7	School Tasks Pretest	.29	-.12	.75**	-.39*	-.27	-.29	1										
8	Reasoning Pretest	.32*	-.16	.45**	-.11	-.041	.05	.56**	1									
9	Training Gain	.16	-.05	.34*	-.05	-.38*	-.47**	.16	.09	1								
10	CPT d' Gain	-.43*	.34	.16	-.22	-.20	-.25	.02	-.40*	.28	1							
11	CPT Errors of Commission Gain	.12	-.21	-.41*	.10	.019	.27	-.28	.25	-.33	-.84**	1						
12	Working Memory Gain	-.09	-.10	-.55**	-.09	-.101	.02	-.35	-.06	-.17	.05	.31	1					
13	Inattention & Hyperactivity Gain	.13	-.08	-.19	-.38	.06	.04	.18	.21	-.41*	-.34	.30	.26	1				
14	Opposition & Defiance Gain	.01	-.12	.08	.06	.23	.01	.17	.19	-.08	-.22	-.01	.03	.24	1			
15	EF Gain	.28	-.26	-.32	.05	.04	-.15	-.16	-.09	.12	-.37	.21	.18	.49*	.24	1		
16	School Tasks Gain	.51**	-.55**	.01	-.17	-.33	-.28	-.39*	-.29	.12	-.08	.10	.26	.04	.08	.26	1	
17	Reasoning Gain	-.09	-.07	.17	-.21	-.34	-.49*	-.06	-.33	.41*	-.50**	-.22	.16	-.29	.02	-.12	.33	1

Note: EF = executive functions; CPT = Continuous Performance Task