

Appendix 1: Supporting online material

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Appendix 2: Supporting online material

Table: Effect sizes and homogeneity statistics for selected groupings of the data.

	k (number of studies)	Effect size	LL 95% CI	UL 95% CI	Q _w
Pre to Post gain effects					
By treatment					
Expt, target	59	0.91	0.83	1	286.53*
Expt, near	32	0.68	0.56	0.79	96.03*
Expt, far	25	0.37	0.24	0.49	16.81
Active control, target	12	0.38	0.2	0.54	42.45*
Active control, near	14	0.17	0.01	0.32	14.43
Active control, far	14	0.17	0.01	0.33	4.87
Passive control, target	11	0.13	-0.06	0.33	8.2
Passive control, near	13	0.15	-0.02	0.32	4.04
Passive control, far	11	0.14	-0.05	0.32	3.58
By age group (only studies that included both younger and older adults)					
Older					
Expt, target	28	0.86	0.73	0.99	145.34*
Expt, near	9	0.73	0.49	0.96	30.00*
Expt, far	4	0.40	0.11	0.69	0.22
Active control	7	0.34	0.10	0.58	0.45
Passive control	7	0.08	-0.19	0.35	0.55
Younger					
Expt, target	28	0.78	0.65	0.91	177.29*
Expt, near	9	0.98	0.76	1.20	88.55*
Expt, far	4	0.72	0.43	1.01	1.04
Active control	7	0.33	0.09	0.57	6.15

Passive control	7	0.28	0.00	0.56	1.64
By training type					
Executive function					
Expt, target	47	0.98	0.88	1.08	353.97*
Expt, near	19	0.78	0.62	0.94	65.9*
Expt, far	13	0.26	0.10	0.44	1.42
Active control	10	0.33	0.14	0.52	2.74
Passive control	12	0.16	-0.04	0.35	2.81
Working memory					
Expt, target	12	1.06	0.88	1.24	28.06*
Expt, near	13	0.57	0.41	0.74	26.9*8
Expt, far	12	0.49	0.31	0.67	12.35
Active control	9	0.13	-0.05	0.32	2.50
Passive control	5	0.14	-0.08	0.36	0.35
By far transfer measure					
EF/attention	14	0.20	0.04	0.36	10.89
Gf	14	0.35	0.18	0.52	20.25
episodic mem	11	0.40	0.18	0.55	3.49
WM/STM	5	0.41	0.15	0.66	1.27
Speed	10	0.43	0.23	0.64	7.22
Other	10	0.42	0.21	0.63	11.70
Cross-sectional comparisons at posttest					
Versus passive control					
Target	10	1.20	0.97	1.43	24.29*
Near transfer	13	0.48	0.29	0.67	13.59
Far transfer	10	0.36	0.15	0.57	10.83
Versus active control					
Target	11	1.20	1.01	1.39	30.65
Near transfer	15	0.56	0.41	0.72	107.41
Far transfer	13	0.34	0.17	0.51	39.48

Note: Asterisks denote significant heterogeneity of the effect size.