

Supplementary Materials for

Increased Working Memory Capacity Supports Human Creativity: A Meta-analytic Evidence

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Groups		Effect size and 95% interval			Test of null (2-Tail)		Heterogeneity				Tau-squared			
Group	Number Studies	Point estimate	Lower limit	Upper limit	Z-value	P-value	Q-value	df (Q)	P-value	I-squared	Tau Squared	Standard Error	Variance	Tau
Fixed effect analysis														
Asian	30	0.126	0.091	0.160	7.071	0.000	43.020	29	0.045	32.589	0.005	0.004	0.000	0.069
Western	20	0.061	0.017	0.105	2.729	0.006	22.480	19	0.261	15.480	0.002	0.004	0.000	0.044
Total within							65.500	48	0.047					
Total between							5.181	1	0.023					
Overall	50	0.101	0.073	0.128	7.230	0.000	70.680	49	0.023	30.674	0.004	0.003	0.000	0.066
Mixed effects analysis														
Asian	30	0.131	0.086	0.175	5.707	0.000								
Western	20	0.061	0.011	0.110	2.389	0.017								
Total between							4.260	1	0.039					
Overall	50	0.099	0.066	0.132	5.832	0.000								

Figure S1. The results of the moderation-effect of culture.

Groups		Effect size and 95% interval			Test of null (2-Tail)		Heterogeneity				Tau-squared			
Group	Number Studies	Point estimate	Lower limit	Upper limit	Z-value	P-value	Q-value	df (Q)	P-value	I-squared	Tau Squared	Standard Error	Variance	Tau
Fixed effect analysis														
college student	48	0.078	0.048	0.109	5.022	0.000	85.988	47	0.000	45.341	0.010	0.005	0.000	0.099
school-children	20	0.033	0.002	0.063	2.083	0.037	48.517	19	0.000	60.838	0.008	0.004	0.000	0.088
Total within							134.505	66	0.000					
Total between							4.321	1	0.038					
Overall	68	0.055	0.034	0.077	5.023	0.000	138.826	67	0.000	51.738	0.009	0.003	0.000	0.095
Mixed effects analysis														
college student	48	0.083	0.041	0.126	3.827	0.000								
school-children	20	0.037	-0.016	0.089	1.380	0.168								
Total between							1.822	1	0.177					
Overall	68	0.065	0.032	0.098	3.838	0.000								

Figure S2. The results of the moderation-effect of age.

Groups		Effect size and 95% interval			Test of null (2-Tail)		Heterogeneity				Tau-squared			
Group	Number Studies	Point estimate	Lower limit	Upper limit	Z-value	P-value	Q-value	df (Q)	P-value	I-squared	Tau Squared	Standard Error	Variance	Tau
Fixed effect analysis														
dual	18	0.131	0.086	0.175	5.746	0.000	56.157	17	0.000	69.728	0.023	0.013	0.000	0.150
verbal	13	0.100	0.048	0.151	3.778	0.000	17.505	12	0.132	31.448	0.004	0.006	0.000	0.067
visual spatial	4	0.155	0.075	0.234	3.770	0.000	1.363	3	0.580	0.000	0.000	0.006	0.000	0.000
Total within							75.625	32	0.000					
Total between							1.548	2	0.461					
Overall	35	0.123	0.092	0.154	7.743	0.000	77.173	34	0.000	55.943	0.012	0.005	0.000	0.108
Mixed effects analysis														
dual	18	0.153	0.067	0.237	3.458	0.001								
verbal	13	0.101	0.034	0.168	2.936	0.003								
visual spatial	4	0.155	0.075	0.234	3.770	0.000								
Total between							1.360	2	0.507					
Overall	35	0.131	0.087	0.175	5.782	0.000								

Figure S3. The results of the moderation-effect of WMC types group.