

Supplementary Materials for

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

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| 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 | 0.590 | 0.000 | 0.000 | 0.006 | 0.000 | 0.000 |
| Total within | | | | | | | 75.825 | 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.