**Supplemental Materials**

**Table S1**

*Correlations Among Study Variables*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1. Child Sex | 1.00 |  |  |  |  |  |  |  |  |
| 2. Grade | .09 | 1.00 |  |  |  |  |  |  |  |
| 3. General anxiety | .12 | .04 | 1.00 |  |  |  |  |  |  |
| **Timer Block** |  |  |  |  |  |  |  |  |  |
| 4. Math anxiety | .09 | .05 | .41\* | 1.00 |  |  |  |  |  |
| 5. Task performance accuracy | -.17\* | .34\* | -.14 | -.24\* | 1.00 |  |  |  |  |
| 6. Task performance reaction time | .02 | -.14 | .04 | .15 | -.47\* | 1.00 |  |  |  |
| 7. Attention to distractor first fixation onset | .02 | -.11 | .05 | .03 | -.11 | .60\* | 1.00 |  |  |
| 8. Attention to distractor fixation count | -.21\* | -.27\* | .11 | .22\* | -.34\* | .39\* | .14 | 1.00 |  |
| 9. Attention to distractor dwell time | -.17\* | -.23\* | .12 | .24\* | -.40\* | .44\* | .15 | .95\* | 1.00 |
| 1. Attention to equation first fixation onset | .08 | -.06 | .07 | .16\* | -.36\* | .44\* | .15\* | .09 | .11 |
| 11. Attention to equation fixation count | -.08 | -.04 | -.05 | .01 | -.07 | .42\* | .39\* | .28\* | .27\* |
| 12. Attention to equation dwell time | -.00 | .02 | -.02 | .02 | -.19\* | .56\* | .41\* | .25\* | .28\* |
| **Star Block** |  |  |  |  |  |  |  |  |  |
| 13. Task performance accuracy | -.12 | .31\* | -.17\* | -.35\* | .79\* | -.54\* | -.20\* | -.36\* | -.43\* |
| 14. Task performance reaction time | .07 | -.14 | .07 | .14 | -.43\* | .87\* | .56\* | .25\* | .29\* |
| 15. Attention to distractor first fixation onset | .06 | -.24\* | .16\* | .15 | -.28\* | .45\* | .41\* | .29\* | .30\* |
| 16. Attention to distractor fixation count | -.09 | -.08 | .13 | .22\* | -.30\* | .20\* | -.02 | .52\* | .50\* |
| 17. Attention to distractor dwell time | -.01 | -.14 | .17\* | .24\* | -.41\* | .30\* | .07 | .55\* | .59\* |
| 18. Attention to equation first fixation onset | .01 | -.04 | .06 | .09 | -.21\* | .36\* | .25\* | .08 | .08 |
| 19. Attention to equation fixation count | .04 | -.04 | -.01 | .05 | -.15 | .39\* | .27\* | .15\* | .16\* |
| 2. Attention to equation dwell time | .10 | -.04 | .05 | .06 | -.28\* | .53\* | .30\* | .16\* | .21\* |

**Table S1** **Continued**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 1. Attention to equation First fixation onset | 1.00 |  |  |  |  |  |  |  |  |  |  |
| 11. Attention to equation Fixation count | -.48\*\* | 1.00 |  |  |  |  |  |  |  |  |  |
| 12. Attention to equation Dwell time | -.35\* | .87\* | 1.00 |  |  |  |  |  |  |  |  |
| **Star Block** |  |  |  |  |  |  |  |  |  |  |
| 13. Task performance Accuracy | -.38\* | -.13 | -.25\* | 1.00 |  |  |  |  |  |  |  |
| 14. Task performance Reaction time | .37\* | .39\* | .51\* | -.50\* | 1.00 |  |  |  |  |  |  |
| 15. Attention to distractor First fixation onset | .27\* | .17\* | .10 | -.32\* | .47\* | 1.00 |  |  |  |  |  |
| 16. Attention to distractor Fixation count | .18\* | .05 | -.03 | -.31\* | .19\* | .35\* | 1.00 |  |  |  |  |
| 17. Attention to distractor Dwell time | .22\* | .07 | .08 | -.43\* | .29\* | .38\* | .86\* | 1.00 |  |  |  |
| 18. Attention to equation First fixation onset | .57\* | -.21\* | -.11 | -.27\* | .35\* | .15 | .06 | .12 | 1.00 |  |  |
| 19. Attention to equation Fixation count | -.14 | .62\* | .52\* | -.14 | .49\* | .28\* | .12 | .11 | -.51\* | 1.00 |  |
| 2. Attention to equation Dwell time | -.06 | .54\* | .66\* | -.28\* | .64\* | .25\* | .07 | .14 | -.39\* | .88\* | 1.00 |

*Note.* \* indicates statistical significance under type I error rate of 0.05.

**Table S2**

*Mediation Models: Effects of Covariates*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Timer BlockMediator:1st fixation onset | Timer BlockMediator: Overall Attention | Star BlockMediator:1st fixation onset | Star BlockMediator: Overall attention |
| **Covariates**  |  |  |  |  |
| Sex 🡪 task performance accuracy  | **-.16 [-.28, -.03]** | **-.23 [-.35, -.11]** | -.10 [-.24, .03] | -.11 [-.23, .02] |
| Grade 🡪 task performance accuracy | **.35 [.23, .47]** | **.31 [.18, .43]** | **.28 [.15, .40]** | **.28 [.15, .40]** |
| GA 🡪 task performance accuracy | -.04 [-.15, .08] | -.03 [-.15, .10] | -.01 [-.14, .11] | -.00 [-.14, .14] |
| Sex 🡪 task performance reaction time | -.01 [-.13, .10]  | .08 [-.05, .19] | .04 [-.09, .17] | .02 [-.10, .13] |
| Grade 🡪 task performance reaction time | -.05 [-.16, .05] | -.10 [-.21, .02] | -.03 [-.15, .11] | -.10 [-.21, .01]  |
| GA 🡪 task performance reaction time | -.04[-.16, .06] | -.02 [-.15, .11] | -.05 [-.19, .09] | -.02 [-.15, .11] |
| Sex 🡪 attention to distractor | .02 [-.14, .17] | **-.18 [-.30, -.03]** | .05 [-.10, .20] | -.03 [-.18, .13] |
| Grade 🡪 attention to distractor | -.12 [-.26, .02] | **-.22 [-.35, -.08]** | **-.24 [-.38, -.10]** | -.15 [-.31, .05] |
| GA 🡪 attention to distractor | .04 [-.13, .20] | .05 [-.10, .21] | .12 [-.03, .28] | .09 [-.05, .22] |
| Sex 🡪 attention to equation | .08 [-.07, .23] | -.01 [-.16, .15] | .02 [-.14, .17] | .08 [-.07, .24] |
| Grade 🡪 attention to equation | -.09 [-.23, .06] | .02 [-.13, .17] | -.07 [-.21, .08] | -.03 [-.19, .12] |
| GA 🡪 attention to equation | .01 [-.15, .18] | -.03 [-.19, .12] | .02 [-.21, .25] | .02 [-.14, .17] |
| **R-Square** |  |  |  |  |
| Task performance accuracy | .30 | .33 | .31 | .37 |
| Task performance reaction time | .49 | .41 | .30 | .46 |
| Attention to distractor | .02 | .14 | .09 | .09 |
| Attention to equation | .04 | .00 | .01 | .01 |

*Notes.* Numbers presented are standardized estimates and 95% bootstrap confidence intervals; MA = math anxiety; GA = general anxiety. Statistically significant effects under type I error rate of 0.05 are in bold face.