**Supplemental Material S2.** Multiple imputation mixed-effects model results.

| Condition | Predictor | *b* estimate | test-statistic | *p* |
|---|---|---|---|---|
| **Verbal-within vs Nonverbal-within** | | | | |
| Accuracy | | | | |
| | Condition | –0.39 | –0.99 | *p* = .32 |
| | Group | –1.87 | –3.51 | *p* < .001*** |
| | SES | 0.01 | 0.12 | *p* = .91 |
| | Verbal-within interference accuracy | 0.57 | 0.99 | *p* = .33 |
| | Group × Condition | 0.64 | 1.07 | *p* = .29 |
| Reaction Time | | | | |
| | Condition | –28.90 | 0.30 | *p* = .76 |
| | Group | 208.06 | 1.54 | *p* = .12 |
| | SES | –10.70 | –0.43 | *p* = .67 |
| | Group × Condition | 7.61 | 0.05 | *p* = .96 |
| **Verbal-within vs. Verbal-divided** | | | | |
| Accuracy | | | | |
| | Condition | 0.24 | 0.80 | *p* = .42 |
| | Group | –2.03 | –3.77 | *p* < .001*** |
| | SES | –0.10 | –1.02 | *p* = .31 |
| | Verbal-within interference accuracy | 0.37 | 0.65 | *p* = .52 |
| | Group × Condition | 0.42 | 0.97 | *p* = .33 |
| Reaction Time | | | | |
| | Condition | –180.54 | –2.38 | *p* < .05* |
| | Group | 224.96 | 1.66 | *p* = .10 |
| | SES | –1.01 | –0.04 | *p* = .97 |
| | Group × Condition | –26.94 | –0.21 | *p* = .83 |
| **Nonverbal-within vs. Nonverbal-divided** | | | | |
| Accuracy | | | | |
| | Condition | 0.68 | 2.02 | *p* < .05* |
| | Group | –1.19 | –2.48 | *p* < .05* |
| | SES | 0.05 | 0.49 | *p* = .62 |

|  |  |  |  |  |
|---|---|---|---|---|
|  | Group × Condition | –0.74 | –1.52 | *p* = .13 |
| Reaction Time |  |  |  |  |
|  | Condition | 442.57 | 4.51 | *p* < .001*** |
|  | Group | 355.45 | 2.27 | *p* < .05* |
|  | SES | 24.46 | 0.77 | *p* = .44 |
|  | Nonverbal-divided interference RT | 0.47 | 2.27 | *p* < .05* |
|  | Group × Condition | 5.86 | 0.04 | *p* = .97 |
| **Verbal-divided vs. Distributed** |  |  |  |  |
| Accuracy |  |  |  |  |
|  | Condition | –0.53 | –1.50 | *p* = .13 |
|  | Group | –1.44 | –3.05 | *p* < .01** |
|  | SES | –0.01 | –0.09 | *p* = .93 |
|  | Distributed interference accuracy | 1.39 | 1.94 | *p* = .06 |
|  | Group × Condition | 0.46 | 0.86 | *p* = .39 |
| Reaction Time |  |  |  |  |
|  | Condition | 314.81 | 3.36 | *p* < .001*** |
|  | Group | 212.00 | 1.72 | *p* = .09 |
|  | SES | 14.29 | 0.57 | *p* = .57 |
|  | Group × Condition | 215.09 | 1.40 | *p* = .16 |
| **Nonverbal-divided vs. Distributed** |  |  |  |  |
| Accuracy |  |  |  |  |
|  | Condition | –0.54 | –1.89 | *p* = .06 |
|  | Group | –1.81 | –3.23 | *p* < .01** |
|  | SES | 0.03 | 0.27 | *p* = .79 |
|  | Distributed interference accuracy | 2.26 | 3.18 | *p* < .01** |
|  | Group × Condition | 0.94 | 2.33 | *p* < .05* |
| DLD Group | Condition | 0.57 | 6.22 | *p* < .001*** |
| TD Group | Condition |  |  | *p* = .10 |
| Reaction Time |  |  |  |  |
|  | Condition | –247.34 | –2.27 | *p* < .05* |
|  | Group | 414.25 | 1.88 | *p* = .06 |
|  | SES | 22.48 | 0.60 | *p* = .55 |

| | | | |
|---|---|---|---|
| Nonverbal-divided interference RT | 0.49 | 2.02 | $p < .05$* |
| Group × Condition | 87.34 | 0.51 | $p = .61$ |

*Note.* Test-statistic = chi-sq for accuracy and t-value for reaction time; Group = Typically Developing vs. Developmental Language Disorder group comparison; Sentence Comprehension = Accuracy on the sentence comprehension task; SES = socioeconomic status; NS = not significant; Matrix Reasoning = *t*-score on the Matrix Reasoning subscale from the Wechsler Abbreviated Intelligence Scale, Second Edition (WASI-II); *significant difference at $p < .05$; **significant difference at $p < .01$; *** significant difference at $p < .001$.