**Supplementary Materials**

*Error Rates (Accuracy) over Five Data Collection Points before Expectation-Maximization*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Time 1 | Time 2 | Time 3 | Time 4 | Time 5 | Total |
|  | *M* *(SD)* | *M* *(SD)* | *M* *(SD)* | *M* *(SD)* | *M* *(SD)* | *M* *(SD)* |
| *wh-*S | 33.33(57.73) | 48.14(50.91) | 33.33(51.64) | 56.22(38.13) | 55.56(50.18) | 48.71(46.98) |
| *wh-*C | 15.59(12.17) | 22.84(29.86) | 18.55(17.32) | 30.00(41.73) | 14.74(20.27) | 19.85(25.06) |
| *wh-*A | 47.29(26.28) | 43.20(26.94) | 43.82(26.26) | 42.99(26.18) | 29.92(18.09) | 42.24(25.57) |
| Total | 48.71(11.62) | 28.39(12.83) | 25.31(10.74) | 26.28(24.47) | 17.55(11.49) |  |  |

*Note. wh-*S = *wh-*subject questions; *wh-*C = *wh-*copula questions; *wh-*A = *wh-*auxiliary 2nd questions.

*Sample Slides of Practice Tasks*



*Pearson Correlations (two-tail) Among Outcome and Predictor Variables for Accuracy*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Error rate change | Grammar test | Correct production | Incorrect production |
| Error rate change | 1.00 |  |  |  |
| Grammar test | *r* = .085*p* = .634 | 1.00 |  |  |
| Correct production | *r* = -.354*p* = .040 | *r* = .354*p* = .040 | 1.00 |  |
| Incorrect production | *r* = .144*p* = .418 | *r* = -.207*p* = .240 | *r* = .361*p* = .036 | 1.00 |

*Pearson Correlations (two-tail) Among Outcome and Predictor Variables for Fluency*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Speech rate change | MLPchange | Repairchange | Grammar test | Correct production | Incorrect production |
| Speech rate change | 1.00 |  |  |  |  |  |
| MLPchange | *r* = -.422*p* = .013 | 1.00 |  |  |  |  |
| Repair change | *r* = -.485*p* = .004 | *r* = .623*p* < .000 | 1.00 |  |  |  |
| Grammar test | *r* = .121*p* = .497 | *r* = .149*p* = .399 | *r* = .099*p* = .577 | 1.00 |  |  |
| Correct production | *r* = .160*p* = .367 | *r* = .027*p* = .881 | *r* = .075*p* = .675 | *r* = .354*p* = .040 | 1.00 |  |
| Incorrect production | *r* = -.214*p* = .225 | *r* = .024*p* = .894 | *r* = .109*p* = .541 | *r* = -.182*p* = .302 | *r* = .364*p* = .034 | 1.00 |

*Note.* MLP = mean length of pauses.