ILSE : Seed Report

Date: 2016-10-20

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This report contains a searchable table, followed by publication-ready tables.

# Available models

Study **ILSE** have contributed the following outcome pairs to the IASLA-2015-Portland model pool: NULL

|  |  |  |
| --- | --- | --- |
| process\_a | process\_b | n\_models |
| tug | block | 6 |
| tug | fluency | 5 |
| tug | piccomp | 6 |
| tug | spatial\_ab | 6 |
| tug | symbol | 6 |
| tug | waisgeneral | 6 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| study\_name | subgroup | model\_type | process\_a | process\_b | n\_models |
| ilse | female | a | tug | block | 1 |
| ilse | female | a | tug | fluency | 1 |
| ilse | female | a | tug | piccomp | 1 |
| ilse | female | a | tug | spatial\_ab | 1 |
| ilse | female | a | tug | symbol | 1 |
| ilse | female | a | tug | waisgeneral | 1 |
| ilse | female | aeh | tug | block | 1 |
| ilse | female | aeh | tug | fluency | 1 |
| ilse | female | aeh | tug | piccomp | 1 |
| ilse | female | aeh | tug | spatial\_ab | 1 |
| ilse | female | aeh | tug | symbol | 1 |
| ilse | female | aeh | tug | waisgeneral | 1 |
| ilse | female | aehplus | tug | block | 1 |
| ilse | female | aehplus | tug | fluency | 1 |
| ilse | female | aehplus | tug | piccomp | 1 |
| ilse | female | aehplus | tug | spatial\_ab | 1 |
| ilse | female | aehplus | tug | symbol | 1 |
| ilse | female | aehplus | tug | waisgeneral | 1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| study\_name | subgroup | model\_type | process\_a | process\_b | n\_models |
| ilse | male | a | tug | block | 1 |
| ilse | male | a | tug | fluency | 1 |
| ilse | male | a | tug | piccomp | 1 |
| ilse | male | a | tug | spatial\_ab | 1 |
| ilse | male | a | tug | symbol | 1 |
| ilse | male | a | tug | waisgeneral | 1 |
| ilse | male | aeh | tug | block | 1 |
| ilse | male | aeh | tug | fluency | 1 |
| ilse | male | aeh | tug | piccomp | 1 |
| ilse | male | aeh | tug | spatial\_ab | 1 |
| ilse | male | aeh | tug | symbol | 1 |
| ilse | male | aeh | tug | waisgeneral | 1 |
| ilse | male | aehplus | tug | block | 1 |
| ilse | male | aehplus | tug | piccomp | 1 |
| ilse | male | aehplus | tug | spatial\_ab | 1 |
| ilse | male | aehplus | tug | symbol | 1 |
| ilse | male | aehplus | tug | waisgeneral | 1 |

# female

Gender = *female*; Model type: *aehplus*; Process (a) = *tug*; Process (b): *block*, *fluency*, *piccomp*, *spatial\_ab*, *symbol*, *waisgeneral*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| process | label | block | fluency | piccomp | spatial\_ab | symbol | waisgeneral | mean(sd) |
| a | Level | 4.78 (1.65) <.01 | 4.79 (1.65) <.01 | 4.80 (1.59) <.01 | 4.79 (1.65) <.01 | 4.86 (1.52) <.01 | 4.79 (1.54) <.01 | 4.80(0.03) |
| a | Slope | 0.21 (0.20) .30 | 0.21 (0.20) .29 | 0.21 (0.20) .30 | 0.20 (0.20) .30 | 0.19 (0.19) .33 | 0.21 (0.19) .27 | 0.20(0.01) |
| a | Level \* age | -0.16 (0.23) .49 | -0.16 (0.23) .48 | -0.16 (0.22) .48 | -0.16 (0.23) .48 | -0.15 (0.21) .48 | -0.16 (0.21) .46 | -0.16(0.00) |
| a | Level \* education | -0.48 (0.42) .26 | -0.48 (0.38) .21 | -0.48 (0.37) .20 | -0.47 (0.37) .20 | -0.49 (0.38) .19 | -0.48 (0.36) .19 | -0.48(0.01) |
| a | Level \* height | 0.01 (0.03) .78 | 0.01 (0.03) .78 | 0.01 (0.03) .75 | 0.01 (0.03) .76 | 0.01 (0.03) .75 | 0.01 (0.03) .76 | 0.01(0.00) |
| a | Level \* smoking | -0.22 (0.37) .55 | -0.20 (0.39) .60 | -0.23 (0.40) .57 | -0.23 (0.39) .54 | -0.23 (0.37) .52 | -0.23 (0.38) .55 | -0.23(0.01) |
| a | Level \* cardio | 0.66 (0.40) .10 | 0.65 (0.40) .10 | 0.66 (0.41) .11 | 0.66 (0.42) .12 | 0.65 (0.42) .12 | 0.67 (0.40) .10 | 0.66(0.01) |
| a | Level \* diabetes | --- | --- | --- | --- | --- | --- | --- |
| a | Slope \* age | 0.00 (0.03) .92 | 0.00 (0.03) .92 | 0.00 (0.03) .89 | 0.00 (0.03) .92 | 0.00 (0.03) .99 | 0.00 (0.03) .88 | 0.00(0.00) |
| a | Slope \* education | 0.05 (0.05) .38 | 0.04 (0.06) .42 | 0.05 (0.05) .38 | 0.04 (0.06) .43 | 0.05 (0.05) .36 | 0.05 (0.05) .35 | 0.05(0.00) |
| a | Slope \* height | 0.00 (0.00) .88 | 0.00 (0.00) .90 | 0.00 (0.00) .88 | 0.00 (0.00) .87 | 0.00 (0.00) .90 | -0.00 (0.00) .86 | -0.00(0.00) |
| a | Slope \* smoking | 0.05 (0.05) .32 | 0.04 (0.05) .42 | 0.05 (0.05) .35 | 0.05 (0.05) .32 | 0.05 (0.05) .32 | 0.05 (0.05) .33 | 0.05(0.00) |
| a | Slope \* cardio | -0.04 (0.05) .40 | -0.04 (0.05) .40 | -0.04 (0.05) .42 | -0.04 (0.05) .41 | -0.04 (0.06) .45 | -0.04 (0.05) .42 | -0.04(0.00) |
| a | Slope \* diabetes | --- | --- | --- | --- | --- | --- | --- |
| b | Level | 19.53 (4.80) <.01 | 24.12 (5.39) <.01 | 9.20 (2.21) <.01 | 11.13 (3.81) <.01 | 38.15 (6.74) <.01 | 12.00 (2.20) <.01 | --- |
| b | Slope | -0.17 (0.44) .70 | -0.18 (0.54) .74 | 0.34 (0.29) .23 | 0.05 (0.30) .86 | 0.03 (0.38) .93 | 0.35 (0.16) .03 | --- |
| b | Level \* age | -0.64 (0.67) .34 | -0.68 (0.75) .36 | -0.19 (0.30) .53 | -1.14 (0.52) .03 | -0.62 (0.95) .51 | -0.08 (0.30) .80 | --- |
| b | Level \* education | 5.61 (1.15) <.01 | 6.30 (1.30) <.01 | 2.26 (0.62) <.01 | 3.44 (1.01) <.01 | 8.92 (1.57) <.01 | 4.27 (0.70) <.01 | --- |
| b | Level \* height | -0.01 (0.10) .95 | -0.04 (0.11) .75 | -0.01 (0.05) .75 | 0.06 (0.09) .51 | 0.06 (0.14) .65 | 0.05 (0.05) .31 | --- |
| b | Level \* smoking | -2.39 (1.18) .04 | 0.14 (1.25) .91 | -0.76 (0.57) .18 | -0.54 (0.96) .57 | -0.15 (1.54) .92 | -0.29 (0.60) .64 | --- |
| b | Level \* cardio | 1.01 (1.24) .41 | -0.96 (1.42) .50 | -0.43 (0.60) .47 | -0.78 (1.04) .45 | -0.79 (1.88) .67 | -0.07 (0.67) .92 | --- |
| b | Level \* diabetes | --- | --- | --- | --- | --- | --- | --- |
| b | Slope \* age | 0.02 (0.06) .73 | -0.01 (0.07) .91 | 0.06 (0.04) .12 | 0.04 (0.04) .39 | 0.06 (0.05) .28 | 0.04 (0.02) .07 | --- |
| b | Slope \* education | -0.03 (0.10) .78 | 0.12 (0.12) .34 | 0.02 (0.07) .80 | 0.17 (0.09) .06 | -0.10 (0.10) .33 | -0.02 (0.05) .69 | --- |
| b | Slope \* height | 0.00 (0.01) .89 | 0.01 (0.01) .41 | 0.01 (0.01) .14 | -0.02 (0.01) .02 | 0.00 (0.01) .56 | 0.00 (0.00) .57 | --- |
| b | Slope \* smoking | -0.02 (0.10) .82 | 0.01 (0.13) .95 | 0.05 (0.07) .47 | -0.08 (0.08) .35 | -0.06 (0.10) .51 | 0.01 (0.05) .82 | --- |
| b | Slope \* cardio | 0.11 (0.11) .35 | -0.01 (0.14) .97 | 0.04 (0.08) .60 | -0.08 (0.09) .35 | -0.02 (0.11) .82 | -0.04 (0.05) .43 | --- |
| b | Slope \* diabetes | --- | --- | --- | --- | --- | --- | --- |
| a | Var (Level) | 1.39 (0.59) .02 | 1.39 (0.64) .03 | 1.36 (0.57) .02 | 1.35 (0.64) .04 | 1.32 (0.57) .02 | 1.37 (0.59) .02 | 1.36(0.03) |
| a | Var (Slope) | 0.00 (0.01) .85 | 0.00 (0.01) .88 | 0.00 (0.01) .87 | 0.00 (0.01) .89 | 0.00 (0.01) .85 | 0.00 (0.01) .83 | 0.00(0.00) |
| a | Var (Residual) | 1.75 (0.29) <.01 | 1.75 (0.32) <.01 | 1.75 (0.27) <.01 | 1.77 (0.32) <.01 | 1.77 (0.27) <.01 | 1.74 (0.30) <.01 | 1.75(0.01) |
| a | Covar (Level, Slope) | -0.04 (0.07) .61 | -0.03 (0.07) .65 | -0.03 (0.06) .64 | -0.03 (0.07) .66 | -0.03 (0.07) .65 | -0.03 (0.07) .62 | -0.03(0.00) |
| b | Var (Level) | 43.93 (6.10) <.01 | 42.67 (6.62) <.01 | 7.57 (1.65) <.01 | 29.77 (4.34) <.01 | 92.94 (10.94) <.01 | 14.05 (1.87) <.01 | --- |
| b | Var (Slope) | 0.09 (0.05) .06 | 0.03 (0.07) .65 | 0.02 (0.02) .32 | 0.01 (0.03) .71 | 0.06 (0.05) .20 | 0.01 (0.01) .19 | --- |
| b | Var (Residual) | 14.48 (1.72) <.01 | 25.64 (2.40) <.01 | 6.45 (0.66) <.01 | 11.31 (0.89) <.01 | 14.25 (1.13) <.01 | 2.99 (0.36) <.01 | --- |
| b | Covar (Level, Slope) | -0.51 (0.38) .18 | -0.28 (0.59) .64 | -0.05 (0.13) .68 | 0.08 (0.29) .79 | -0.47 (0.65) .47 | -0.10 (0.11) .36 | --- |
| ab | Covar (Levels) | -0.37 (1.33) .78 | 0.11 (1.56) .94 | 0.27 (0.84) .75 | 0.17 (1.13) .88 | -1.45 (2.00) .47 | 0.16 (0.82) .85 | --- |
| ab | Covar (Slopes) | -0.00 (0.01) .92 | 0.00 (0.02) .80 | 0.00 (0.01) .90 | -0.00 (0.01) .93 | -0.00 (0.02) .96 | 0.00 (0.01) .95 | --- |
| ab | Covar (Residuals) | 0.25 (0.47) .60 | -0.66 (0.70) .34 | -0.10 (0.31) .74 | -0.35 (0.50) .48 | 0.10 (0.58) .86 | -0.07 (0.24) .76 | --- |
|  | Correlation of Levels | -0.048 | 0.015 | 0.084 | 0.027 | -0.131 | 0.036 | -0.00(0.08) |
|  | Correlation of Slopes | -0.146 | 0.485 | 0.171 | -0.302 | -0.091 | 0.000 | 0.02(0.28) |
|  | Correlation of Residuals | 0.049 | -0.099 | -0.031 | -0.078 | 0.021 | -0.031 | -0.03(0.06) |
|  | N | 225 | 225 | 225 | 225 | 225 | 225 | 225.00(0.00) |
|  | occasions | 3 | 3 | 3 | 3 | 3 | 3 | 3.00(0.00) |
|  | parameters | 37 | 37 | 37 | 37 | 37 | 37 | 37.00(0.00) |
|  | LL | -2,629 | -2,713 | -2,294 | -2,525 | -2,693 | -2,206 | -2,510(214) |
|  | AIC | 5,332 | 5,500 | 4,662 | 5,124 | 5,459 | 4,486 | 5,094(427) |
|  | BIC | 5,458 | 5,627 | 4,788 | 5,251 | 5,586 | 4,612 | 5,220(427) |

## block

Gender = *female*; Process (a) = *tug*; Process (b) = *block*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 5.36 (1.22) <.01 | 4.92 (1.53) <.01 | 4.78 (1.65) <.01 |
| a | Slope | 0.22 (0.12) .07 | 0.23 (0.18) .20 | 0.21 (0.20) .30 |
| a | Level \* age | -0.08 (0.17) .62 | -0.16 (0.21) .46 | -0.16 (0.23) .49 |
| a | Level \* education | --- | -0.55 (0.41) .17 | -0.48 (0.42) .26 |
| a | Level \* height | --- | 0.00 (0.03) .96 | 0.01 (0.03) .78 |
| a | Level \* smoking | --- | --- | -0.22 (0.37) .55 |
| a | Level \* cardio | --- | --- | 0.66 (0.40) .10 |
| a | Level \* diabetes | --- | --- | --- |
| a | Slope \* age | 0.00 (0.02) .86 | 0.01 (0.02) .80 | 0.00 (0.03) .92 |
| a | Slope \* education | --- | 0.05 (0.05) .31 | 0.05 (0.05) .38 |
| a | Slope \* height | --- | 0.00 (0.00) .95 | 0.00 (0.00) .88 |
| a | Slope \* smoking | --- | --- | 0.05 (0.05) .32 |
| a | Slope \* cardio | --- | --- | -0.04 (0.05) .40 |
| a | Slope \* diabetes | --- | --- | --- |
| b | Level | 19.49 (4.71) <.01 | 18.09 (4.73) <.01 | 19.53 (4.80) <.01 |
| b | Slope | -0.16 (0.39) .68 | -0.18 (0.41) .66 | -0.17 (0.44) .70 |
| b | Level \* age | -0.83 (0.66) .21 | -0.78 (0.66) .24 | -0.64 (0.67) .34 |
| b | Level \* education | --- | 5.19 (1.13) <.01 | 5.61 (1.15) <.01 |
| b | Level \* height | --- | -0.03 (0.10) .76 | -0.01 (0.10) .95 |
| b | Level \* smoking | --- | --- | -2.39 (1.18) .04 |
| b | Level \* cardio | --- | --- | 1.01 (1.24) .41 |
| b | Level \* diabetes | --- | --- | --- |
| b | Slope \* age | 0.02 (0.05) .72 | 0.01 (0.06) .79 | 0.02 (0.06) .73 |
| b | Slope \* education | --- | -0.03 (0.10) .79 | -0.03 (0.10) .78 |
| b | Slope \* height | --- | 0.00 (0.01) .89 | 0.00 (0.01) .89 |
| b | Slope \* smoking | --- | --- | -0.02 (0.10) .82 |
| b | Slope \* cardio | --- | --- | 0.11 (0.11) .35 |
| b | Slope \* diabetes | --- | --- | --- |
| a | Var (Level) | 1.54 (0.40) <.01 | 1.38 (0.58) .02 | 1.39 (0.59) .02 |
| a | Var (Slope) | 0.01 (0.01) .28 | 0.00 (0.01) .85 | 0.00 (0.01) .85 |
| a | Var (Residual) | 0.08 (0.45) .86 | 1.77 (0.27) <.01 | 1.75 (0.29) <.01 |
| a | Covar (Level, Slope) | -0.08 (0.06) .17 | -0.03 (0.06) .62 | -0.04 (0.07) .61 |
| b | Var (Level) | 50.92 (6.54) <.01 | 45.43 (6.33) <.01 | 43.93 (6.10) <.01 |
| b | Var (Slope) | 0.09 (0.04) .04 | 0.09 (0.05) .06 | 0.09 (0.05) .06 |
| b | Var (Residual) | 14.76 (1.72) <.01 | 14.68 (1.72) <.01 | 14.48 (1.72) <.01 |
| b | Covar (Level, Slope) | -0.50 (0.38) .19 | -0.48 (0.36) .19 | -0.51 (0.38) .18 |
| ab | Covar (Levels) | -1.53 (0.97) .12 | -0.28 (1.28) .83 | -0.37 (1.33) .78 |
| ab | Covar (Slopes) | -0.01 (0.01) .34 | -0.00 (0.01) .84 | -0.00 (0.01) .92 |
| ab | Covar (Residuals) | 0.39 (0.45) .39 | 0.26 (0.45) .56 | 0.25 (0.47) .60 |
|  | Correlation of Levels | -0.17 | -0.035 | -0.048 |
|  | Correlation of Slopes | -0.40 | -0.221 | -0.146 |
|  | Correlation of Residuals | 0.36 | 0.052 | 0.049 |
|  | N | 228 | 226 | 225 |
|  | occasions | 3 | 3 | 3 |
|  | parameters | 23 | 29 | 37 |
|  | LL | -2,664 | -2,652 | -2,629 |
|  | AIC | 5,373 | 5,362 | 5,332 |
|  | BIC | 5,452 | 5,462 | 5,458 |

## fluency

Gender = *female*; Process (a) = *tug*; Process (b) = *fluency*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 5.31 (1.25) <.01 | 4.92 (1.56) <.01 | 4.79 (1.65) <.01 |
| a | Slope | 0.23 (0.14) .09 | 0.23 (0.18) .19 | 0.21 (0.20) .29 |
| a | Level \* age | -0.10 (0.18) .57 | -0.16 (0.22) .46 | -0.16 (0.23) .48 |
| a | Level \* education | --- | -0.56 (0.37) .13 | -0.48 (0.38) .21 |
| a | Level \* height | --- | 0.00 (0.03) .95 | 0.01 (0.03) .78 |
| a | Level \* smoking | --- | --- | -0.20 (0.39) .60 |
| a | Level \* cardio | --- | --- | 0.65 (0.40) .10 |
| a | Level \* diabetes | --- | --- | --- |
| a | Slope \* age | 0.00 (0.02) .81 | 0.01 (0.02) .80 | 0.00 (0.03) .92 |
| a | Slope \* education | --- | 0.05 (0.05) .34 | 0.04 (0.06) .42 |
| a | Slope \* height | --- | 0.00 (0.00) .94 | 0.00 (0.00) .90 |
| a | Slope \* smoking | --- | --- | 0.04 (0.05) .42 |
| a | Slope \* cardio | --- | --- | -0.04 (0.05) .40 |
| a | Slope \* diabetes | --- | --- | --- |
| b | Level | 25.62 (5.18) <.01 | 23.79 (5.06) <.01 | 24.12 (5.39) <.01 |
| b | Slope | -0.12 (0.44) .79 | -0.22 (0.48) .64 | -0.18 (0.54) .74 |
| b | Level \* age | -0.73 (0.73) .32 | -0.69 (0.72) .34 | -0.68 (0.75) .36 |
| b | Level \* education | --- | 6.37 (1.29) <.01 | 6.30 (1.30) <.01 |
| b | Level \* height | --- | -0.03 (0.10) .78 | -0.04 (0.11) .75 |
| b | Level \* smoking | --- | --- | 0.14 (1.25) .91 |
| b | Level \* cardio | --- | --- | -0.96 (1.42) .50 |
| b | Level \* diabetes | --- | --- | --- |
| b | Slope \* age | -0.01 (0.06) .92 | -0.01 (0.07) .83 | -0.01 (0.07) .91 |
| b | Slope \* education | --- | 0.10 (0.12) .42 | 0.12 (0.12) .34 |
| b | Slope \* height | --- | 0.01 (0.01) .38 | 0.01 (0.01) .41 |
| b | Slope \* smoking | --- | --- | 0.01 (0.13) .95 |
| b | Slope \* cardio | --- | --- | -0.01 (0.14) .97 |
| b | Slope \* diabetes | --- | --- | --- |
| a | Var (Level) | 1.49 (0.37) <.01 | 1.40 (0.62) .02 | 1.39 (0.64) .03 |
| a | Var (Slope) | 0.01 (0.01) .26 | 0.00 (0.01) .87 | 0.00 (0.01) .88 |
| a | Var (Residual) | 0.13 (0.41) .75 | 1.76 (0.29) <.01 | 1.75 (0.32) <.01 |
| a | Covar (Level, Slope) | -0.07 (0.05) .18 | -0.03 (0.07) .64 | -0.03 (0.07) .65 |
| b | Var (Level) | 50.80 (6.97) <.01 | 42.39 (6.28) <.01 | 42.67 (6.62) <.01 |
| b | Var (Slope) | 0.03 (0.07) .66 | 0.04 (0.07) .61 | 0.03 (0.07) .65 |
| b | Var (Residual) | 26.20 (2.46) <.01 | 25.84 (2.38) <.01 | 25.64 (2.40) <.01 |
| b | Covar (Level, Slope) | -0.05 (0.59) .94 | -0.22 (0.56) .69 | -0.28 (0.59) .64 |
| ab | Covar (Levels) | -1.23 (1.19) .30 | 0.08 (1.50) .96 | 0.11 (1.56) .94 |
| ab | Covar (Slopes) | 0.00 (0.02) .76 | 0.00 (0.02) .79 | 0.00 (0.02) .80 |
| ab | Covar (Residuals) | -0.91 (0.69) .19 | -0.72 (0.67) .28 | -0.66 (0.70) .34 |
|  | Correlation of Levels | -0.14 | 0.01 | 0.015 |
|  | Correlation of Slopes | 0.27 | 0.59 | 0.485 |
|  | Correlation of Residuals | -0.49 | -0.11 | -0.099 |
|  | N | 228 | 226 | 225 |
|  | occasions | 3 | 3 | 3 |
|  | parameters | 23 | 29 | 37 |
|  | LL | -2,754 | -2,733 | -2,713 |
|  | AIC | 5,554 | 5,523 | 5,500 |
|  | BIC | 5,633 | 5,622 | 5,627 |

## piccomp

Gender = *female*; Process (a) = *tug*; Process (b) = *piccomp*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 5.35 (1.20) <.01 | 4.93 (1.48) <.01 | 4.80 (1.59) <.01 |
| a | Slope | 0.24 (0.13) .06 | 0.24 (0.18) .20 | 0.21 (0.20) .30 |
| a | Level \* age | -0.10 (0.17) .57 | -0.16 (0.21) .45 | -0.16 (0.22) .48 |
| a | Level \* education | --- | -0.56 (0.37) .13 | -0.48 (0.37) .20 |
| a | Level \* height | --- | 0.00 (0.03) .94 | 0.01 (0.03) .75 |
| a | Level \* smoking | --- | --- | -0.23 (0.40) .57 |
| a | Level \* cardio | --- | --- | 0.66 (0.41) .11 |
| a | Level \* diabetes | --- | --- | --- |
| a | Slope \* age | 0.01 (0.02) .72 | 0.01 (0.02) .77 | 0.00 (0.03) .89 |
| a | Slope \* education | --- | 0.06 (0.05) .29 | 0.05 (0.05) .38 |
| a | Slope \* height | --- | 0.00 (0.00) .92 | 0.00 (0.00) .88 |
| a | Slope \* smoking | --- | --- | 0.05 (0.05) .35 |
| a | Slope \* cardio | --- | --- | -0.04 (0.05) .42 |
| a | Slope \* diabetes | --- | --- | --- |
| b | Level | 9.11 (2.14) <.01 | 8.46 (2.08) <.01 | 9.20 (2.21) <.01 |
| b | Slope | 0.45 (0.24) .06 | 0.38 (0.24) .11 | 0.34 (0.29) .23 |
| b | Level \* age | -0.25 (0.30) .41 | -0.24 (0.29) .41 | -0.19 (0.30) .53 |
| b | Level \* education | --- | 2.21 (0.60) <.01 | 2.26 (0.62) <.01 |
| b | Level \* height | --- | -0.02 (0.05) .69 | -0.01 (0.05) .75 |
| b | Level \* smoking | --- | --- | -0.76 (0.57) .18 |
| b | Level \* cardio | --- | --- | -0.43 (0.60) .47 |
| b | Level \* diabetes | --- | --- | --- |
| b | Slope \* age | 0.07 (0.03) .04 | 0.06 (0.03) .06 | 0.06 (0.04) .12 |
| b | Slope \* education | --- | 0.02 (0.07) .76 | 0.02 (0.07) .80 |
| b | Slope \* height | --- | 0.01 (0.00) .10 | 0.01 (0.01) .14 |
| b | Slope \* smoking | --- | --- | 0.05 (0.07) .47 |
| b | Slope \* cardio | --- | --- | 0.04 (0.08) .60 |
| b | Slope \* diabetes | --- | --- | --- |
| a | Var (Level) | 1.57 (0.41) <.01 | 1.36 (0.56) .02 | 1.36 (0.57) .02 |
| a | Var (Slope) | 0.01 (0.01) .32 | 0.00 (0.01) .87 | 0.00 (0.01) .87 |
| a | Var (Residual) | 0.07 (0.46) .88 | 1.77 (0.25) <.01 | 1.75 (0.27) <.01 |
| a | Covar (Level, Slope) | -0.08 (0.06) .19 | -0.03 (0.06) .65 | -0.03 (0.06) .64 |
| b | Var (Level) | 8.84 (1.74) <.01 | 7.72 (1.65) <.01 | 7.57 (1.65) <.01 |
| b | Var (Slope) | 0.02 (0.02) .24 | 0.02 (0.02) .32 | 0.02 (0.02) .32 |
| b | Var (Residual) | 6.45 (0.63) <.01 | 6.45 (0.63) <.01 | 6.45 (0.66) <.01 |
| b | Covar (Level, Slope) | -0.05 (0.12) .70 | -0.06 (0.11) .59 | -0.05 (0.13) .68 |
| ab | Covar (Levels) | -0.44 (0.58) .45 | 0.25 (0.73) .74 | 0.27 (0.84) .75 |
| ab | Covar (Slopes) | -0.01 (0.01) .35 | 0.00 (0.01) .91 | 0.00 (0.01) .90 |
| ab | Covar (Residuals) | 0.00 (0.31) .99 | -0.12 (0.30) .67 | -0.10 (0.31) .74 |
|  | Correlation of Levels | -0.12 | 0.076 | 0.084 |
|  | Correlation of Slopes | -0.49 | 0.243 | 0.171 |
|  | Correlation of Residuals | 0.00 | -0.037 | -0.031 |
|  | N | 228 | 226 | 225 |
|  | occasions | 3 | 3 | 3 |
|  | parameters | 23 | 29 | 37 |
|  | LL | -2,325 | -2,310 | -2,294 |
|  | AIC | 4,697 | 4,679 | 4,662 |
|  | BIC | 4,776 | 4,778 | 4,788 |

## spatial\_ab

Gender = *female*; Process (a) = *tug*; Process (b) = *spatial\_ab*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 5.41 (1.22) <.01 | 4.89 (1.61) <.01 | 4.79 (1.65) <.01 |
| a | Slope | 0.23 (0.12) .06 | 0.23 (0.18) .20 | 0.20 (0.20) .30 |
| a | Level \* age | -0.08 (0.17) .63 | -0.16 (0.22) .47 | -0.16 (0.23) .48 |
| a | Level \* education | --- | -0.55 (0.37) .13 | -0.47 (0.37) .20 |
| a | Level \* height | --- | 0.00 (0.03) .94 | 0.01 (0.03) .76 |
| a | Level \* smoking | --- | --- | -0.23 (0.39) .54 |
| a | Level \* cardio | --- | --- | 0.66 (0.42) .12 |
| a | Level \* diabetes | --- | --- | --- |
| a | Slope \* age | 0.00 (0.02) .81 | 0.01 (0.02) .79 | 0.00 (0.03) .92 |
| a | Slope \* education | --- | 0.05 (0.06) .34 | 0.04 (0.06) .43 |
| a | Slope \* height | --- | 0.00 (0.00) .95 | 0.00 (0.00) .87 |
| a | Slope \* smoking | --- | --- | 0.05 (0.05) .32 |
| a | Slope \* cardio | --- | --- | -0.04 (0.05) .41 |
| a | Slope \* diabetes | --- | --- | --- |
| b | Level | 11.36 (3.75) <.01 | 10.12 (3.66) .01 | 11.13 (3.81) <.01 |
| b | Slope | 0.10 (0.32) .76 | 0.02 (0.29) .94 | 0.05 (0.30) .86 |
| b | Level \* age | -1.23 (0.52) .02 | -1.23 (0.51) .02 | -1.14 (0.52) .03 |
| b | Level \* education | --- | 3.35 (0.97) <.01 | 3.44 (1.01) <.01 |
| b | Level \* height | --- | 0.06 (0.08) .48 | 0.06 (0.09) .51 |
| b | Level \* smoking | --- | --- | -0.54 (0.96) .57 |
| b | Level \* cardio | --- | --- | -0.78 (1.04) .45 |
| b | Level \* diabetes | --- | --- | --- |
| b | Slope \* age | 0.04 (0.04) .32 | 0.04 (0.04) .35 | 0.04 (0.04) .39 |
| b | Slope \* education | --- | 0.18 (0.08) .03 | 0.17 (0.09) .06 |
| b | Slope \* height | --- | -0.02 (0.01) .01 | -0.02 (0.01) .02 |
| b | Slope \* smoking | --- | --- | -0.08 (0.08) .35 |
| b | Slope \* cardio | --- | --- | -0.08 (0.09) .35 |
| b | Slope \* diabetes | --- | --- | --- |
| a | Var (Level) | 1.49 (0.37) <.01 | 1.35 (0.64) .03 | 1.35 (0.64) .04 |
| a | Var (Slope) | 0.01 (0.01) .26 | 0.00 (0.01) .88 | 0.00 (0.01) .89 |
| a | Var (Residual) | 0.10 (0.41) .81 | 1.78 (0.31) <.01 | 1.77 (0.32) <.01 |
| a | Covar (Level, Slope) | -0.07 (0.05) .16 | -0.03 (0.07) .68 | -0.03 (0.07) .66 |
| b | Var (Level) | 33.12 (4.62) <.01 | 30.23 (4.33) <.01 | 29.77 (4.34) <.01 |
| b | Var (Slope) | 0.03 (0.03) .34 | 0.01 (0.03) .60 | 0.01 (0.03) .71 |
| b | Var (Residual) | 11.49 (0.88) <.01 | 11.40 (0.88) <.01 | 11.31 (0.89) <.01 |
| b | Covar (Level, Slope) | 0.13 (0.33) .69 | 0.06 (0.28) .84 | 0.08 (0.29) .79 |
| ab | Covar (Levels) | -1.23 (0.91) .18 | 0.01 (1.09) .99 | 0.17 (1.13) .88 |
| ab | Covar (Slopes) | -0.00 (0.01) .63 | -0.00 (0.01) .89 | -0.00 (0.01) .93 |
| ab | Covar (Residuals) | -0.21 (0.48) .66 | -0.35 (0.50) .49 | -0.35 (0.50) .48 |
|  | Correlation of Levels | -0.18 | 0.0017 | 0.027 |
|  | Correlation of Slopes | -0.28 | -0.5164 | -0.302 |
|  | Correlation of Residuals | -0.20 | -0.0768 | -0.078 |
|  | N | 228 | 226 | 225 |
|  | occasions | 3 | 3 | 3 |
|  | parameters | 23 | 29 | 37 |
|  | LL | -2,562 | -2,546 | -2,525 |
|  | AIC | 5,170 | 5,150 | 5,124 |
|  | BIC | 5,249 | 5,249 | 5,251 |

## symbol

Gender = *female*; Process (a) = *tug*; Process (b) = *symbol*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 5.46 (1.17) <.01 | 4.96 (1.40) <.01 | 4.86 (1.52) <.01 |
| a | Slope | 0.20 (0.12) .09 | 0.22 (0.18) .22 | 0.19 (0.19) .33 |
| a | Level \* age | -0.07 (0.16) .66 | -0.15 (0.20) .44 | -0.15 (0.21) .48 |
| a | Level \* education | --- | -0.56 (0.36) .12 | -0.49 (0.38) .19 |
| a | Level \* height | --- | 0.00 (0.02) .94 | 0.01 (0.03) .75 |
| a | Level \* smoking | --- | --- | -0.23 (0.37) .52 |
| a | Level \* cardio | --- | --- | 0.65 (0.42) .12 |
| a | Level \* diabetes | --- | --- | --- |
| a | Slope \* age | 0.00 (0.02) .99 | 0.00 (0.02) .86 | 0.00 (0.03) .99 |
| a | Slope \* education | --- | 0.06 (0.05) .29 | 0.05 (0.05) .36 |
| a | Slope \* height | --- | 0.00 (0.00) .92 | 0.00 (0.00) .90 |
| a | Slope \* smoking | --- | --- | 0.05 (0.05) .32 |
| a | Slope \* cardio | --- | --- | -0.04 (0.06) .45 |
| a | Slope \* diabetes | --- | --- | --- |
| b | Level | 39.79 (6.71) <.01 | 37.10 (6.44) <.01 | 38.15 (6.74) <.01 |
| b | Slope | -0.03 (0.39) .95 | -0.02 (0.37) .96 | 0.03 (0.38) .93 |
| b | Level \* age | -0.79 (0.96) .41 | -0.73 (0.93) .43 | -0.62 (0.95) .51 |
| b | Level \* education | --- | 8.68 (1.55) <.01 | 8.92 (1.57) <.01 |
| b | Level \* height | --- | 0.07 (0.14) .60 | 0.06 (0.14) .65 |
| b | Level \* smoking | --- | --- | -0.15 (1.54) .92 |
| b | Level \* cardio | --- | --- | -0.79 (1.88) .67 |
| b | Level \* diabetes | --- | --- | --- |
| b | Slope \* age | 0.06 (0.05) .29 | 0.05 (0.05) .29 | 0.06 (0.05) .28 |
| b | Slope \* education | --- | -0.10 (0.09) .32 | -0.10 (0.10) .33 |
| b | Slope \* height | --- | 0.00 (0.01) .58 | 0.00 (0.01) .56 |
| b | Slope \* smoking | --- | --- | -0.06 (0.10) .51 |
| b | Slope \* cardio | --- | --- | -0.02 (0.11) .82 |
| b | Slope \* diabetes | --- | --- | --- |
| a | Var (Level) | 1.49 (0.37) <.01 | 1.31 (0.56) .02 | 1.32 (0.57) .02 |
| a | Var (Slope) | 0.01 (0.01) .23 | 0.00 (0.01) .85 | 0.00 (0.01) .85 |
| a | Var (Residual) | 0.12 (0.40) .76 | 1.78 (0.25) <.01 | 1.77 (0.27) <.01 |
| a | Covar (Level, Slope) | -0.07 (0.05) .17 | -0.03 (0.06) .66 | -0.03 (0.07) .65 |
| b | Var (Level) | 111.86 (13.30) <.01 | 95.12 (11.07) <.01 | 92.94 (10.94) <.01 |
| b | Var (Slope) | 0.06 (0.04) .14 | 0.06 (0.04) .17 | 0.06 (0.05) .20 |
| b | Var (Residual) | 14.27 (1.11) <.01 | 14.21 (1.10) <.01 | 14.25 (1.13) <.01 |
| b | Covar (Level, Slope) | -0.57 (0.62) .36 | -0.48 (0.62) .44 | -0.47 (0.65) .47 |
| ab | Covar (Levels) | -2.53 (1.49) .09 | -1.60 (1.84) .38 | -1.45 (2.00) .47 |
| ab | Covar (Slopes) | -0.00 (0.01) .89 | -0.00 (0.02) .94 | -0.00 (0.02) .96 |
| ab | Covar (Residuals) | -0.18 (0.60) .76 | 0.08 (0.55) .88 | 0.10 (0.58) .86 |
|  | Correlation of Levels | -0.197 | -0.143 | -0.131 |
|  | Correlation of Slopes | -0.072 | -0.091 | -0.091 |
|  | Correlation of Residuals | -0.137 | 0.016 | 0.021 |
|  | N | 228 | 226 | 225 |
|  | occasions | 3 | 3 | 3 |
|  | parameters | 23 | 29 | 37 |
|  | LL | -2,730 | -2,712 | -2,693 |
|  | AIC | 5,505 | 5,481 | 5,459 |
|  | BIC | 5,584 | 5,581 | 5,586 |

## waisgeneral

Gender = *female*; Process (a) = *tug*; Process (b) = *waisgeneral*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 5.53 (1.18) <.01 | 4.89 (1.46) <.01 | 4.79 (1.54) <.01 |
| a | Slope | 0.21 (0.12) .08 | 0.24 (0.17) .17 | 0.21 (0.19) .27 |
| a | Level \* age | -0.07 (0.16) .68 | -0.16 (0.21) .44 | -0.16 (0.21) .46 |
| a | Level \* education | --- | -0.55 (0.36) .12 | -0.48 (0.36) .19 |
| a | Level \* height | --- | 0.00 (0.02) .95 | 0.01 (0.03) .76 |
| a | Level \* smoking | --- | --- | -0.23 (0.38) .55 |
| a | Level \* cardio | --- | --- | 0.67 (0.40) .10 |
| a | Level \* diabetes | --- | --- | --- |
| a | Slope \* age | 0.00 (0.02) .88 | 0.01 (0.02) .75 | 0.00 (0.03) .88 |
| a | Slope \* education | --- | 0.06 (0.05) .29 | 0.05 (0.05) .35 |
| a | Slope \* height | --- | 0.00 (0.00) .95 | -0.00 (0.00) .86 |
| a | Slope \* smoking | --- | --- | 0.05 (0.05) .33 |
| a | Slope \* cardio | --- | --- | -0.04 (0.05) .42 |
| a | Slope \* diabetes | --- | --- | --- |
| b | Level | 13.00 (2.39) <.01 | 11.59 (2.13) <.01 | 12.00 (2.20) <.01 |
| b | Slope | 0.38 (0.17) .02 | 0.35 (0.16) .02 | 0.35 (0.16) .03 |
| b | Level \* age | -0.13 (0.33) .69 | -0.12 (0.30) .69 | -0.08 (0.30) .80 |
| b | Level \* education | --- | 4.17 (0.67) <.01 | 4.27 (0.70) <.01 |
| b | Level \* height | --- | 0.05 (0.04) .31 | 0.05 (0.05) .31 |
| b | Level \* smoking | --- | --- | -0.29 (0.60) .64 |
| b | Level \* cardio | --- | --- | -0.07 (0.67) .92 |
| b | Level \* diabetes | --- | --- | --- |
| b | Slope \* age | 0.05 (0.02) .04 | 0.04 (0.02) .05 | 0.04 (0.02) .07 |
| b | Slope \* education | --- | -0.02 (0.05) .72 | -0.02 (0.05) .69 |
| b | Slope \* height | --- | 0.00 (0.00) .53 | 0.00 (0.00) .57 |
| b | Slope \* smoking | --- | --- | 0.01 (0.05) .82 |
| b | Slope \* cardio | --- | --- | -0.04 (0.05) .43 |
| b | Slope \* diabetes | --- | --- | --- |
| a | Var (Level) | 1.52 (0.43) <.01 | 1.35 (0.57) .02 | 1.37 (0.59) .02 |
| a | Var (Slope) | 0.01 (0.01) .29 | 0.00 (0.01) .85 | 0.00 (0.01) .83 |
| a | Var (Residual) | 0.09 (0.46) .85 | 1.76 (0.28) <.01 | 1.74 (0.30) <.01 |
| a | Covar (Level, Slope) | -0.07 (0.06) .19 | -0.03 (0.06) .64 | -0.03 (0.07) .62 |
| b | Var (Level) | 18.53 (2.48) <.01 | 14.20 (1.84) <.01 | 14.05 (1.87) <.01 |
| b | Var (Slope) | 0.01 (0.01) .07 | 0.01 (0.01) .17 | 0.01 (0.01) .19 |
| b | Var (Residual) | 2.94 (0.35) <.01 | 2.98 (0.35) <.01 | 2.99 (0.36) <.01 |
| b | Covar (Level, Slope) | -0.12 (0.13) .36 | -0.10 (0.11) .34 | -0.10 (0.11) .36 |
| ab | Covar (Levels) | -0.99 (0.68) .15 | 0.12 (0.76) .88 | 0.16 (0.82) .85 |
| ab | Covar (Slopes) | -0.01 (0.00) .20 | 0.00 (0.00) .96 | 0.00 (0.01) .95 |
| ab | Covar (Residuals) | 0.05 (0.22) .81 | -0.05 (0.23) .84 | -0.07 (0.24) .76 |
|  | Correlation of Levels | -0.19 | 0.027 | 0.036 |
|  | Correlation of Slopes | -0.47 | 0.000 | 0.000 |
|  | Correlation of Residuals | 0.10 | -0.020 | -0.031 |
|  | N | 228 | 226 | 225 |
|  | occasions | 3 | 3 | 3 |
|  | parameters | 23 | 29 | 37 |
|  | LL | -2,248 | -2,221 | -2,206 |
|  | AIC | 4,541 | 4,501 | 4,486 |
|  | BIC | 4,620 | 4,600 | 4,612 |

## Summary

Study = *ILSE*; Gender = *female*; Process (a) = *tug*

Computed correlations:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus |
| Correlation of Levels | block | -0.17 | -0.03 | -0.05 |
| Correlation of Levels | fluency | -0.14 | 0.01 | 0.01 |
| Correlation of Levels | piccomp | -0.12 | 0.08 | 0.08 |
| Correlation of Levels | spatial\_ab | -0.18 | 0.00 | 0.03 |
| Correlation of Levels | symbol | -0.20 | -0.14 | -0.13 |
| Correlation of Levels | waisgeneral | -0.19 | 0.03 | 0.04 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus |
| Correlation of Slopes | block | -0.40 | -0.22 | -0.15 |
| Correlation of Slopes | fluency | 0.27 | 0.59 | 0.49 |
| Correlation of Slopes | piccomp | -0.49 | 0.24 | 0.17 |
| Correlation of Slopes | spatial\_ab | -0.28 | -0.52 | -0.30 |
| Correlation of Slopes | symbol | -0.07 | -0.09 | -0.09 |
| Correlation of Slopes | waisgeneral | -0.47 | 0.00 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus |
| Correlation of Residuals | block | 0.36 | 0.05 | 0.05 |
| Correlation of Residuals | fluency | -0.49 | -0.11 | -0.10 |
| Correlation of Residuals | piccomp | 0.00 | -0.04 | -0.03 |
| Correlation of Residuals | spatial\_ab | -0.20 | -0.08 | -0.08 |
| Correlation of Residuals | symbol | -0.14 | 0.02 | 0.02 |
| Correlation of Residuals | waisgeneral | 0.10 | -0.02 | -0.03 |

P-values for corresponding covariances:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus |
| Covariance of Levels | block | 0.12 | 0.83 | 0.78 |
| Covariance of Levels | fluency | 0.30 | 0.96 | 0.94 |
| Covariance of Levels | piccomp | 0.45 | 0.74 | 0.75 |
| Covariance of Levels | spatial\_ab | 0.18 | 0.99 | 0.88 |
| Covariance of Levels | symbol | 0.09 | 0.38 | 0.47 |
| Covariance of Levels | waisgeneral | 0.15 | 0.88 | 0.85 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus |
| Covariance of Slopes | block | 0.34 | 0.84 | 0.92 |
| Covariance of Slopes | fluency | 0.76 | 0.79 | 0.80 |
| Covariance of Slopes | piccomp | 0.35 | 0.91 | 0.90 |
| Covariance of Slopes | spatial\_ab | 0.63 | 0.89 | 0.93 |
| Covariance of Slopes | symbol | 0.89 | 0.94 | 0.96 |
| Covariance of Slopes | waisgeneral | 0.20 | 0.96 | 0.95 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus |
| Covariance of Residuals | block | 0.39 | 0.56 | 0.60 |
| Covariance of Residuals | fluency | 0.19 | 0.28 | 0.34 |
| Covariance of Residuals | piccomp | 1.00 | 0.67 | 0.74 |
| Covariance of Residuals | spatial\_ab | 0.66 | 0.49 | 0.48 |
| Covariance of Residuals | symbol | 0.76 | 0.88 | 0.86 |
| Covariance of Residuals | waisgeneral | 0.81 | 0.84 | 0.76 |

# male

Gender = *male*; Model type: *aehplus*; Process (a) = *tug*; Process (b): *block*, *fluency*, *piccomp*, *spatial\_ab*, *symbol*, *waisgeneral*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| process | label | block | piccomp | spatial\_ab | symbol | waisgeneral | mean(sd) |
| a | Level | 4.71 (1.10) <.01 | 4.87 (1.13) <.01 | 4.66 (1.15) <.01 | 4.92 (1.10) <.01 | 4.88 (1.13) <.01 | 4.81(0.11) |
| a | Slope | 0.28 (0.18) .11 | 0.27 (0.17) .13 | 0.30 (0.18) .09 | 0.27 (0.18) .13 | 0.26 (0.19) .16 | 0.28(0.02) |
| a | Level \* age | -0.05 (0.16) .77 | -0.03 (0.15) .86 | -0.05 (0.16) .74 | -0.03 (0.15) .86 | -0.03 (0.16) .85 | -0.04(0.01) |
| a | Level \* education | -0.16 (0.26) .54 | -0.16 (0.26) .54 | -0.18 (0.27) .51 | -0.19 (0.27) .49 | -0.21 (0.26) .42 | -0.18(0.02) |
| a | Level \* height | -0.02 (0.02) .27 | -0.02 (0.02) .30 | -0.02 (0.02) .29 | -0.02 (0.02) .27 | -0.02 (0.02) .35 | -0.02(0.00) |
| a | Level \* smoking | 0.05 (0.30) .87 | 0.04 (0.31) .88 | 0.06 (0.32) .85 | 0.02 (0.32) .96 | 0.04 (0.32) .90 | 0.04(0.02) |
| a | Level \* cardio | 0.46 (0.28) .11 | 0.46 (0.27) .09 | 0.48 (0.27) .08 | 0.43 (0.27) .12 | 0.47 (0.27) .08 | 0.46(0.02) |
| a | Level \* diabetes | --- | --- | --- | --- | --- | --- |
| a | Slope \* age | 0.01 (0.02) .74 | 0.00 (0.02) .82 | 0.01 (0.02) .66 | 0.01 (0.02) .78 | 0.01 (0.02) .82 | 0.01(0.00) |
| a | Slope \* education | 0.01 (0.04) .75 | 0.01 (0.04) .81 | 0.01 (0.04) .79 | 0.01 (0.04) .80 | 0.02 (0.04) .69 | 0.01(0.00) |
| a | Slope \* height | 0.00 (0.00) .78 | 0.00 (0.00) .84 | 0.00 (0.00) .81 | 0.00 (0.00) .70 | 0.00 (0.00) .92 | 0.00(0.00) |
| a | Slope \* smoking | -0.02 (0.04) .66 | -0.02 (0.04) .58 | -0.03 (0.04) .54 | -0.01 (0.05) .74 | -0.02 (0.05) .72 | -0.02(0.00) |
| a | Slope \* cardio | 0.02 (0.05) .69 | 0.02 (0.05) .66 | 0.01 (0.05) .76 | 0.02 (0.05) .61 | 0.01 (0.05) .76 | 0.02(0.00) |
| a | Slope \* diabetes | --- | --- | --- | --- | --- | --- |
| b | Level | 22.73 (3.92) <.01 | 11.49 (1.82) <.01 | 21.55 (3.23) <.01 | 37.48 (5.52) <.01 | 14.29 (2.07) <.01 | --- |
| b | Slope | -0.75 (0.45) .10 | 0.05 (0.24) .83 | -0.74 (0.33) .03 | 0.04 (0.50) .94 | 0.04 (0.19) .84 | --- |
| b | Level \* age | -0.43 (0.54) .43 | -0.01 (0.25) .96 | 0.04 (0.46) .93 | -0.06 (0.74) .94 | -0.24 (0.30) .41 | --- |
| b | Level \* education | 6.06 (1.15) <.01 | 1.91 (0.62) <.01 | 3.47 (0.93) <.01 | 8.78 (1.49) <.01 | 3.46 (0.70) <.01 | --- |
| b | Level \* height | 0.15 (0.08) .06 | 0.04 (0.03) .27 | 0.08 (0.07) .22 | 0.19 (0.10) .06 | 0.02 (0.04) .66 | --- |
| b | Level \* smoking | -1.28 (1.16) .27 | 0.43 (0.48) .37 | -0.18 (0.92) .84 | 0.12 (1.58) .94 | -0.33 (0.57) .57 | --- |
| b | Level \* cardio | -0.54 (1.11) .62 | -0.18 (0.48) .71 | -0.39 (0.88) .66 | -0.42 (1.49) .78 | 0.73 (0.56) .19 | --- |
| b | Level \* diabetes | --- | --- | --- | --- | --- | --- |
| b | Slope \* age | -0.06 (0.06) .29 | -0.00 (0.03) .91 | -0.06 (0.05) .21 | 0.06 (0.07) .38 | 0.01 (0.03) .79 | --- |
| b | Slope \* education | -0.20 (0.11) .07 | -0.07 (0.06) .24 | -0.06 (0.10) .56 | -0.06 (0.12) .63 | -0.06 (0.05) .23 | --- |
| b | Slope \* height | 0.00 (0.01) .96 | 0.00 (0.00) .88 | 0.01 (0.01) .33 | -0.01 (0.01) .56 | 0.00 (0.00) .32 | --- |
| b | Slope \* smoking | 0.04 (0.12) .76 | -0.07 (0.06) .26 | 0.11 (0.09) .22 | -0.03 (0.13) .83 | 0.03 (0.04) .52 | --- |
| b | Slope \* cardio | -0.17 (0.11) .12 | -0.05 (0.06) .41 | 0.03 (0.10) .79 | -0.05 (0.13) .70 | -0.06 (0.05) .21 | --- |
| b | Slope \* diabetes | --- | --- | --- | --- | --- | --- |
| a | Var (Level) | 0.40 (0.49) .42 | 0.26 (0.45) .57 | 0.30 (0.47) .52 | 0.27 (0.44) .54 | 0.25 (0.43) .56 | 0.29(0.06) |
| a | Var (Slope) | 0.00 (0.01) .61 | 0.00 (0.01) .73 | 0.00 (0.01) .69 | 0.00 (0.01) .77 | 0.00 (0.01) .77 | 0.00(0.00) |
| a | Var (Residual) | 1.82 (0.28) <.01 | 1.90 (0.26) <.01 | 1.88 (0.27) <.01 | 1.86 (0.24) <.01 | 1.88 (0.24) <.01 | 1.87(0.03) |
| a | Covar (Level, Slope) | -0.02 (0.06) .75 | -0.00 (0.05) .92 | -0.01 (0.06) .85 | -0.00 (0.05) .98 | -0.00 (0.05) .99 | -0.01(0.01) |
| b | Var (Level) | 40.95 (6.15) <.01 | 7.50 (1.15) <.01 | 27.59 (3.69) <.01 | 86.88 (10.78) <.01 | 11.55 (1.51) <.01 | --- |
| b | Var (Slope) | 0.06 (0.05) .26 | 0.02 (0.01) .04 | 0.10 (0.02) <.01 | 0.18 (0.06) <.01 | 0.01 (0.01) .38 | --- |
| b | Var (Residual) | 17.64 (1.74) <.01 | 3.85 (0.36) <.01 | 8.03 (0.65) <.01 | 15.43 (1.43) <.01 | 2.81 (0.22) <.01 | --- |
| b | Covar (Level, Slope) | 0.25 (0.43) .56 | -0.03 (0.10) .78 | -0.17 (0.28) .54 | -0.26 (0.64) .68 | 0.00 (0.08) .99 | --- |
| ab | Covar (Levels) | -1.75 (1.14) .12 | -0.32 (0.47) .50 | -1.18 (0.78) .13 | -2.28 (1.38) .10 | -0.41 (0.47) .38 | --- |
| ab | Covar (Slopes) | 0.00 (0.02) .90 | 0.00 (0.01) .98 | -0.00 (0.01) .85 | -0.01 (0.02) .68 | -0.00 (0.01) .80 | --- |
| ab | Covar (Residuals) | 0.25 (0.53) .64 | -0.07 (0.28) .79 | 0.18 (0.39) .64 | -0.49 (0.46) .28 | -0.20 (0.19) .29 | --- |
|  | Correlation of Levels | -0.434 | -0.231 | -0.408 | -0.473 | -0.241 | -0.36(0.11) |
|  | Correlation of Slopes | 0.132 | 0.000 | -0.118 | -0.419 | -0.267 | -0.13(0.22) |
|  | Correlation of Residuals | 0.044 | -0.027 | 0.047 | -0.091 | -0.088 | -0.02(0.07) |
|  | N | 252 | 252 | 252 | 252 | 252 | 252.00(0.00) |
|  | occasions | 3 | 3 | 3 | 3 | 3 | 3.00(0.00) |
|  | parameters | 37 | 37 | 37 | 37 | 37 | 37.00(0.00) |
|  | LL | -2,882 | -2,379 | -2,696 | -2,947 | -2,353 | -2,651(276) |
|  | AIC | 5,838 | 4,833 | 5,466 | 5,968 | 4,781 | 5,377(553) |
|  | BIC | 5,968 | 4,963 | 5,596 | 6,099 | 4,911 | 5,508(553) |

## block

Gender = *male*; Process (a) = *tug*; Process (b) = *block*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 5.26 (0.96) <.01 | 5.02 (1.04) <.01 | 4.71 (1.10) <.01 |
| a | Slope | 0.22 (0.15) .14 | 0.26 (0.17) .14 | 0.28 (0.18) .11 |
| a | Level \* age | 0.01 (0.14) .94 | -0.03 (0.15) .85 | -0.05 (0.16) .77 |
| a | Level \* education | --- | -0.18 (0.26) .50 | -0.16 (0.26) .54 |
| a | Level \* height | --- | -0.03 (0.02) .20 | -0.02 (0.02) .27 |
| a | Level \* smoking | --- | --- | 0.05 (0.30) .87 |
| a | Level \* cardio | --- | --- | 0.46 (0.28) .11 |
| a | Level \* diabetes | --- | --- | --- |
| a | Slope \* age | 0.00 (0.02) .93 | 0.01 (0.02) .81 | 0.01 (0.02) .74 |
| a | Slope \* education | --- | 0.02 (0.04) .67 | 0.01 (0.04) .75 |
| a | Slope \* height | --- | 0.00 (0.00) .78 | 0.00 (0.00) .78 |
| a | Slope \* smoking | --- | --- | -0.02 (0.04) .66 |
| a | Slope \* cardio | --- | --- | 0.02 (0.05) .69 |
| a | Slope \* diabetes | --- | --- | --- |
| b | Level | 22.28 (3.89) <.01 | 21.41 (3.70) <.01 | 22.73 (3.92) <.01 |
| b | Slope | -0.77 (0.38) .04 | -0.74 (0.42) .08 | -0.75 (0.45) .10 |
| b | Level \* age | -0.72 (0.56) .20 | -0.46 (0.53) .39 | -0.43 (0.54) .43 |
| b | Level \* education | --- | 6.02 (1.12) <.01 | 6.06 (1.15) <.01 |
| b | Level \* height | --- | 0.16 (0.07) .03 | 0.15 (0.08) .06 |
| b | Level \* smoking | --- | --- | -1.28 (1.16) .27 |
| b | Level \* cardio | --- | --- | -0.54 (1.11) .62 |
| b | Level \* diabetes | --- | --- | --- |
| b | Slope \* age | -0.05 (0.05) .31 | -0.06 (0.06) .30 | -0.06 (0.06) .29 |
| b | Slope \* education | --- | -0.20 (0.11) .07 | -0.20 (0.11) .07 |
| b | Slope \* height | --- | 0.00 (0.01) .98 | 0.00 (0.01) .96 |
| b | Slope \* smoking | --- | --- | 0.04 (0.12) .76 |
| b | Slope \* cardio | --- | --- | -0.17 (0.11) .12 |
| b | Slope \* diabetes | --- | --- | --- |
| a | Var (Level) | 0.70 (0.41) .09 | 0.43 (0.47) .36 | 0.40 (0.49) .42 |
| a | Var (Slope) | 0.00 (0.01) .75 | 0.00 (0.01) .58 | 0.00 (0.01) .61 |
| a | Var (Residual) | 1.02 (0.32) <.01 | 1.81 (0.27) <.01 | 1.82 (0.28) <.01 |
| a | Covar (Level, Slope) | -0.04 (0.06) .47 | -0.01 (0.05) .78 | -0.02 (0.06) .75 |
| b | Var (Level) | 52.31 (7.40) <.01 | 41.16 (6.05) <.01 | 40.95 (6.15) <.01 |
| b | Var (Slope) | 0.06 (0.05) .25 | 0.06 (0.05) .22 | 0.06 (0.05) .26 |
| b | Var (Residual) | 18.11 (1.75) <.01 | 17.68 (1.73) <.01 | 17.64 (1.74) <.01 |
| b | Covar (Level, Slope) | -0.00 (0.44) .99 | 0.24 (0.42) .57 | 0.25 (0.43) .56 |
| ab | Covar (Levels) | -2.18 (1.08) .04 | -1.87 (1.14) .10 | -1.75 (1.14) .12 |
| ab | Covar (Slopes) | 0.00 (0.01) .69 | 0.00 (0.01) .98 | 0.00 (0.02) .90 |
| ab | Covar (Residuals) | 0.05 (0.47) .91 | 0.22 (0.52) .67 | 0.25 (0.53) .64 |
|  | Correlation of Levels | -0.360 | -0.445 | -0.434 |
|  | Correlation of Slopes | 0.337 | 0.000 | 0.132 |
|  | Correlation of Residuals | 0.012 | 0.039 | 0.044 |
|  | N | 253 | 253 | 252 |
|  | occasions | 3 | 3 | 3 |
|  | parameters | 23 | 29 | 37 |
|  | LL | -2,919 | -2,898 | -2,882 |
|  | AIC | 5,885 | 5,853 | 5,838 |
|  | BIC | 5,966 | 5,956 | 5,968 |

## fluency

Gender = *male*; Process (a) = *tug*; Process (b) = *fluency*

|  |  |  |  |
| --- | --- | --- | --- |
| process | label | a | aeh |
| a | Level | 5.43 (0.95) <.01 | 5.15 (1.10) <.01 |
| a | Slope | 0.21 (0.16) .19 | 0.25 (0.18) .17 |
| a | Level \* age | 0.03 (0.14) .85 | -0.02 (0.16) .90 |
| a | Level \* education | --- | -0.19 (0.26) .45 |
| a | Level \* height | --- | -0.03 (0.02) .19 |
| a | Level \* smoking | --- | --- |
| a | Level \* cardio | --- | --- |
| a | Level \* diabetes | --- | --- |
| a | Slope \* age | 0.00 (0.02) .97 | 0.00 (0.02) .83 |
| a | Slope \* education | --- | 0.01 (0.04) .74 |
| a | Slope \* height | --- | 0.00 (0.00) .77 |
| a | Slope \* smoking | --- | --- |
| a | Slope \* cardio | --- | --- |
| a | Slope \* diabetes | --- | --- |
| b | Level | 24.74 (4.76) <.01 | 23.91 (4.64) <.01 |
| b | Slope | -0.08 (0.41) .85 | -0.07 (0.43) .88 |
| b | Level \* age | -0.52 (0.68) .45 | -0.27 (0.65) .67 |
| b | Level \* education | --- | 5.46 (1.23) <.01 |
| b | Level \* height | --- | 0.15 (0.09) .10 |
| b | Level \* smoking | --- | --- |
| b | Level \* cardio | --- | --- |
| b | Level \* diabetes | --- | --- |
| b | Slope \* age | 0.01 (0.06) .82 | 0.01 (0.06) .84 |
| b | Slope \* education | --- | 0.01 (0.11) .94 |
| b | Slope \* height | --- | -0.01 (0.01) .36 |
| b | Slope \* smoking | --- | --- |
| b | Slope \* cardio | --- | --- |
| b | Slope \* diabetes | --- | --- |
| a | Var (Level) | 0.65 (0.40) .11 | 0.25 (0.44) .58 |
| a | Var (Slope) | 0.00 (0.01) .72 | 0.00 (0.01) .72 |
| a | Var (Residual) | 0.98 (0.31) <.01 | 1.93 (0.24) <.01 |
| a | Covar (Level, Slope) | -0.04 (0.05) .44 | -0.00 (0.05) .97 |
| b | Var (Level) | 55.70 (8.53) <.01 | 46.32 (7.90) <.01 |
| b | Var (Slope) | 0.03 (0.07) .70 | 0.03 (0.07) .67 |
| b | Var (Residual) | 23.16 (2.46) <.01 | 22.93 (2.42) <.01 |
| b | Covar (Level, Slope) | 0.58 (0.52) .26 | 0.64 (0.52) .22 |
| ab | Covar (Levels) | -1.25 (1.06) .24 | -0.79 (1.15) .49 |
| ab | Covar (Slopes) | 0.00 (0.02) .93 | -0.00 (0.02) .84 |
| ab | Covar (Residuals) | -0.39 (0.62) .53 | -0.37 (0.58) .52 |
|  | Correlation of Levels | -0.208 | -0.235 |
|  | Correlation of Slopes | 0.192 | -0.311 |
|  | Correlation of Residuals | -0.082 | -0.056 |
|  | N | 253 | 253 |
|  | occasions | 3 | 3 |
|  | parameters | 23 | 29 |
|  | LL | -2,967 | -2,951 |
|  | AIC | 5,980 | 5,960 |
|  | BIC | 6,062 | 6,063 |

## piccomp

Gender = *male*; Process (a) = *tug*; Process (b) = *piccomp*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 5.50 (0.95) <.01 | 5.18 (1.06) <.01 | 4.87 (1.13) <.01 |
| a | Slope | 0.20 (0.15) .19 | 0.24 (0.16) .15 | 0.27 (0.17) .13 |
| a | Level \* age | 0.04 (0.14) .78 | -0.01 (0.15) .95 | -0.03 (0.15) .86 |
| a | Level \* education | --- | -0.18 (0.26) .48 | -0.16 (0.26) .54 |
| a | Level \* height | --- | -0.03 (0.02) .22 | -0.02 (0.02) .30 |
| a | Level \* smoking | --- | --- | 0.04 (0.31) .88 |
| a | Level \* cardio | --- | --- | 0.46 (0.27) .09 |
| a | Level \* diabetes | --- | --- | --- |
| a | Slope \* age | -0.00 (0.02) .95 | 0.00 (0.02) .89 | 0.00 (0.02) .82 |
| a | Slope \* education | --- | 0.01 (0.04) .73 | 0.01 (0.04) .81 |
| a | Slope \* height | --- | 0.00 (0.00) .85 | 0.00 (0.00) .84 |
| a | Slope \* smoking | --- | --- | -0.02 (0.04) .58 |
| a | Slope \* cardio | --- | --- | 0.02 (0.05) .66 |
| a | Slope \* diabetes | --- | --- | --- |
| b | Level | 11.88 (1.77) <.01 | 11.59 (1.69) <.01 | 11.49 (1.82) <.01 |
| b | Slope | -0.02 (0.22) .91 | -0.01 (0.22) .96 | 0.05 (0.24) .83 |
| b | Level \* age | -0.12 (0.25) .64 | -0.04 (0.24) .88 | -0.01 (0.25) .96 |
| b | Level \* education | --- | 1.91 (0.61) <.01 | 1.91 (0.62) <.01 |
| b | Level \* height | --- | 0.04 (0.03) .26 | 0.04 (0.03) .27 |
| b | Level \* smoking | --- | --- | 0.43 (0.48) .37 |
| b | Level \* cardio | --- | --- | -0.18 (0.48) .71 |
| b | Level \* diabetes | --- | --- | --- |
| b | Slope \* age | -0.00 (0.03) .97 | -0.00 (0.03) .92 | -0.00 (0.03) .91 |
| b | Slope \* education | --- | -0.07 (0.06) .24 | -0.07 (0.06) .24 |
| b | Slope \* height | --- | 0.00 (0.00) .84 | 0.00 (0.00) .88 |
| b | Slope \* smoking | --- | --- | -0.07 (0.06) .26 |
| b | Slope \* cardio | --- | --- | -0.05 (0.06) .41 |
| b | Slope \* diabetes | --- | --- | --- |
| a | Var (Level) | 0.60 (0.39) .12 | 0.29 (0.44) .51 | 0.26 (0.45) .57 |
| a | Var (Slope) | 0.00 (0.01) .79 | 0.00 (0.01) .72 | 0.00 (0.01) .73 |
| a | Var (Residual) | 1.00 (0.30) <.01 | 1.90 (0.25) <.01 | 1.90 (0.26) <.01 |
| a | Covar (Level, Slope) | -0.03 (0.05) .57 | -0.00 (0.05) .95 | -0.00 (0.05) .92 |
| b | Var (Level) | 8.58 (1.21) <.01 | 7.53 (1.10) <.01 | 7.50 (1.15) <.01 |
| b | Var (Slope) | 0.02 (0.01) .02 | 0.02 (0.01) .02 | 0.02 (0.01) .04 |
| b | Var (Residual) | 3.85 (0.35) <.01 | 3.84 (0.35) <.01 | 3.85 (0.36) <.01 |
| b | Covar (Level, Slope) | -0.06 (0.09) .51 | -0.03 (0.10) .74 | -0.03 (0.10) .78 |
| ab | Covar (Levels) | -0.52 (0.42) .21 | -0.35 (0.48) .47 | -0.32 (0.47) .50 |
| ab | Covar (Slopes) | 0.00 (0.01) .91 | -0.00 (0.01) .92 | 0.00 (0.01) .98 |
| ab | Covar (Residuals) | -0.09 (0.25) .72 | -0.09 (0.27) .74 | -0.07 (0.28) .79 |
|  | Correlation of Levels | -0.227 | -0.236 | -0.231 |
|  | Correlation of Slopes | 0.115 | -0.118 | 0.000 |
|  | Correlation of Residuals | -0.046 | -0.033 | -0.027 |
|  | N | 253 | 253 | 252 |
|  | occasions | 3 | 3 | 3 |
|  | parameters | 23 | 29 | 37 |
|  | LL | -2,404 | -2,394 | -2,379 |
|  | AIC | 4,853 | 4,846 | 4,833 |
|  | BIC | 4,935 | 4,948 | 4,963 |

## spatial\_ab

Gender = *male*; Process (a) = *tug*; Process (b) = *spatial\_ab*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 5.34 (0.97) <.01 | 5.04 (1.06) <.01 | 4.66 (1.15) <.01 |
| a | Slope | 0.23 (0.16) .15 | 0.27 (0.17) .12 | 0.30 (0.18) .09 |
| a | Level \* age | 0.02 (0.14) .90 | -0.03 (0.15) .84 | -0.05 (0.16) .74 |
| a | Level \* education | --- | -0.20 (0.26) .45 | -0.18 (0.27) .51 |
| a | Level \* height | --- | -0.03 (0.02) .20 | -0.02 (0.02) .29 |
| a | Level \* smoking | --- | --- | 0.06 (0.32) .85 |
| a | Level \* cardio | --- | --- | 0.48 (0.27) .08 |
| a | Level \* diabetes | --- | --- | --- |
| a | Slope \* age | 0.00 (0.02) .90 | 0.01 (0.02) .74 | 0.01 (0.02) .66 |
| a | Slope \* education | --- | 0.02 (0.04) .70 | 0.01 (0.04) .79 |
| a | Slope \* height | --- | 0.00 (0.00) .79 | 0.00 (0.00) .81 |
| a | Slope \* smoking | --- | --- | -0.03 (0.04) .54 |
| a | Slope \* cardio | --- | --- | 0.01 (0.05) .76 |
| a | Slope \* diabetes | --- | --- | --- |
| b | Level | 21.77 (3.03) <.01 | 21.23 (3.05) <.01 | 21.55 (3.23) <.01 |
| b | Slope | -0.68 (0.31) .03 | -0.65 (0.32) .04 | -0.74 (0.33) .03 |
| b | Level \* age | -0.12 (0.43) .79 | 0.03 (0.43) .94 | 0.04 (0.46) .93 |
| b | Level \* education | --- | 3.47 (0.92) <.01 | 3.47 (0.93) <.01 |
| b | Level \* height | --- | 0.08 (0.07) .20 | 0.08 (0.07) .22 |
| b | Level \* smoking | --- | --- | -0.18 (0.92) .84 |
| b | Level \* cardio | --- | --- | -0.39 (0.88) .66 |
| b | Level \* diabetes | --- | --- | --- |
| b | Slope \* age | -0.06 (0.04) .15 | -0.06 (0.05) .19 | -0.06 (0.05) .21 |
| b | Slope \* education | --- | -0.06 (0.10) .56 | -0.06 (0.10) .56 |
| b | Slope \* height | --- | 0.01 (0.01) .31 | 0.01 (0.01) .33 |
| b | Slope \* smoking | --- | --- | 0.11 (0.09) .22 |
| b | Slope \* cardio | --- | --- | 0.03 (0.10) .79 |
| b | Slope \* diabetes | --- | --- | --- |
| a | Var (Level) | 0.65 (0.39) .09 | 0.33 (0.45) .46 | 0.30 (0.47) .52 |
| a | Var (Slope) | 0.00 (0.01) .71 | 0.00 (0.01) .64 | 0.00 (0.01) .69 |
| a | Var (Residual) | 1.03 (0.30) <.01 | 1.87 (0.26) <.01 | 1.88 (0.27) <.01 |
| a | Covar (Level, Slope) | -0.04 (0.05) .48 | -0.01 (0.05) .87 | -0.01 (0.06) .85 |
| b | Var (Level) | 31.21 (4.24) <.01 | 27.47 (3.64) <.01 | 27.59 (3.69) <.01 |
| b | Var (Slope) | 0.10 (0.02) <.01 | 0.10 (0.02) <.01 | 0.10 (0.02) <.01 |
| b | Var (Residual) | 8.03 (0.63) <.01 | 8.07 (0.64) <.01 | 8.03 (0.65) <.01 |
| b | Covar (Level, Slope) | -0.15 (0.28) .58 | -0.18 (0.27) .51 | -0.17 (0.28) .54 |
| ab | Covar (Levels) | -1.55 (0.74) .04 | -1.29 (0.79) .10 | -1.18 (0.78) .13 |
| ab | Covar (Slopes) | -0.00 (0.01) .88 | -0.00 (0.01) .72 | -0.00 (0.01) .85 |
| ab | Covar (Residuals) | -0.00 (0.38) .99 | 0.22 (0.39) .57 | 0.18 (0.39) .64 |
|  | Correlation of Levels | -0.3450 | -0.426 | -0.408 |
|  | Correlation of Slopes | -0.1000 | -0.204 | -0.118 |
|  | Correlation of Residuals | -0.0017 | 0.056 | 0.047 |
|  | N | 253 | 253 | 252 |
|  | occasions | 3 | 3 | 3 |
|  | parameters | 23 | 29 | 37 |
|  | LL | -2,724 | -2,711 | -2,696 |
|  | AIC | 5,493 | 5,479 | 5,466 |
|  | BIC | 5,574 | 5,582 | 5,596 |

## symbol

Gender = *male*; Process (a) = *tug*; Process (b) = *symbol*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 5.43 (0.92) <.01 | 5.18 (1.04) <.01 | 4.92 (1.10) <.01 |
| a | Slope | 0.22 (0.15) .14 | 0.25 (0.17) .14 | 0.27 (0.18) .13 |
| a | Level \* age | 0.03 (0.13) .83 | -0.01 (0.15) .94 | -0.03 (0.15) .86 |
| a | Level \* education | --- | -0.21 (0.27) .43 | -0.19 (0.27) .49 |
| a | Level \* height | --- | -0.03 (0.02) .21 | -0.02 (0.02) .27 |
| a | Level \* smoking | --- | --- | 0.02 (0.32) .96 |
| a | Level \* cardio | --- | --- | 0.43 (0.27) .12 |
| a | Level \* diabetes | --- | --- | --- |
| a | Slope \* age | 0.00 (0.02) .94 | 0.00 (0.02) .83 | 0.01 (0.02) .78 |
| a | Slope \* education | --- | 0.02 (0.04) .69 | 0.01 (0.04) .80 |
| a | Slope \* height | --- | 0.00 (0.00) .72 | 0.00 (0.00) .70 |
| a | Slope \* smoking | --- | --- | -0.01 (0.05) .74 |
| a | Slope \* cardio | --- | --- | 0.02 (0.05) .61 |
| a | Slope \* diabetes | --- | --- | --- |
| b | Level | 38.45 (5.53) <.01 | 37.09 (5.06) <.01 | 37.48 (5.52) <.01 |
| b | Slope | -0.03 (0.45) .95 | -0.00 (0.46) .99 | 0.04 (0.50) .94 |
| b | Level \* age | -0.48 (0.78) .54 | -0.11 (0.71) .88 | -0.06 (0.74) .94 |
| b | Level \* education | --- | 8.75 (1.43) <.01 | 8.78 (1.49) <.01 |
| b | Level \* height | --- | 0.19 (0.10) .05 | 0.19 (0.10) .06 |
| b | Level \* smoking | --- | --- | 0.12 (1.58) .94 |
| b | Level \* cardio | --- | --- | -0.42 (1.49) .78 |
| b | Level \* diabetes | --- | --- | --- |
| b | Slope \* age | 0.06 (0.06) .34 | 0.06 (0.06) .37 | 0.06 (0.07) .38 |
| b | Slope \* education | --- | -0.06 (0.12) .62 | -0.06 (0.12) .63 |
| b | Slope \* height | --- | -0.00 (0.01) .57 | -0.01 (0.01) .56 |
| b | Slope \* smoking | --- | --- | -0.03 (0.13) .83 |
| b | Slope \* cardio | --- | --- | -0.05 (0.13) .70 |
| b | Slope \* diabetes | --- | --- | --- |
| a | Var (Level) | 0.55 (0.38) .14 | 0.29 (0.43) .49 | 0.27 (0.44) .54 |
| a | Var (Slope) | 0.00 (0.01) .73 | 0.00 (0.01) .74 | 0.00 (0.01) .77 |
| a | Var (Residual) | 1.06 (0.29) <.01 | 1.87 (0.23) <.01 | 1.86 (0.24) <.01 |
| a | Covar (Level, Slope) | -0.02 (0.05) .63 | 0.00 (0.05) .99 | -0.00 (0.05) .98 |
| b | Var (Level) | 109.81 (12.28) <.01 | 86.57 (10.03) <.01 | 86.88 (10.78) <.01 |
| b | Var (Slope) | 0.18 (0.05) <.01 | 0.18 (0.06) <.01 | 0.18 (0.06) <.01 |
| b | Var (Residual) | 15.42 (1.39) <.01 | 15.43 (1.40) <.01 | 15.43 (1.43) <.01 |
| b | Covar (Level, Slope) | -0.46 (0.66) .49 | -0.24 (0.61) .69 | -0.26 (0.64) .68 |
| ab | Covar (Levels) | -3.19 (1.36) .02 | -2.49 (1.34) .06 | -2.28 (1.38) .10 |
| ab | Covar (Slopes) | -0.00 (0.02) .79 | -0.01 (0.02) .60 | -0.01 (0.02) .68 |
| ab | Covar (Residuals) | -0.61 (0.43) .15 | -0.45 (0.44) .31 | -0.49 (0.46) .28 |
|  | Correlation of Levels | -0.41 | -0.493 | -0.473 |
|  | Correlation of Slopes | -0.17 | -0.526 | -0.419 |
|  | Correlation of Residuals | -0.15 | -0.084 | -0.091 |
|  | N | 253 | 253 | 252 |
|  | occasions | 3 | 3 | 3 |
|  | parameters | 23 | 29 | 37 |
|  | LL | -2,986 | -2,961 | -2,947 |
|  | AIC | 6,017 | 5,981 | 5,968 |
|  | BIC | 6,098 | 6,083 | 6,099 |

## waisgeneral

Gender = *male*; Process (a) = *tug*; Process (b) = *waisgeneral*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 5.44 (0.94) <.01 | 5.19 (1.05) <.01 | 4.88 (1.13) <.01 |
| a | Slope | 0.21 (0.16) .19 | 0.23 (0.18) .18 | 0.26 (0.19) .16 |
| a | Level \* age | 0.03 (0.13) .84 | -0.01 (0.15) .93 | -0.03 (0.16) .85 |
| a | Level \* education | --- | -0.23 (0.26) .36 | -0.21 (0.26) .42 |
| a | Level \* height | --- | -0.02 (0.02) .26 | -0.02 (0.02) .35 |
| a | Level \* smoking | --- | --- | 0.04 (0.32) .90 |
| a | Level \* cardio | --- | --- | 0.47 (0.27) .08 |
| a | Level \* diabetes | --- | --- | --- |
| a | Slope \* age | 0.00 (0.02) .98 | 0.00 (0.02) .88 | 0.01 (0.02) .82 |
| a | Slope \* education | --- | 0.02 (0.04) .58 | 0.02 (0.04) .69 |
| a | Slope \* height | --- | 0.00 (0.00) .91 | 0.00 (0.00) .92 |
| a | Slope \* smoking | --- | --- | -0.02 (0.05) .72 |
| a | Slope \* cardio | --- | --- | 0.01 (0.05) .76 |
| a | Slope \* diabetes | --- | --- | --- |
| b | Level | 15.00 (2.17) <.01 | 14.39 (2.02) <.01 | 14.29 (2.07) <.01 |
| b | Slope | 0.03 (0.18) .86 | 0.05 (0.19) .78 | 0.04 (0.19) .84 |
| b | Level \* age | -0.34 (0.31) .27 | -0.23 (0.29) .43 | -0.24 (0.30) .41 |
| b | Level \* education | --- | 3.46 (0.68) <.01 | 3.46 (0.70) <.01 |
| b | Level \* height | --- | 0.01 (0.04) .73 | 0.02 (0.04) .66 |
| b | Level \* smoking | --- | --- | -0.33 (0.57) .57 |
| b | Level \* cardio | --- | --- | 0.73 (0.56) .19 |
| b | Level \* diabetes | --- | --- | --- |
| b | Slope \* age | 0.01 (0.03) .74 | 0.01 (0.03) .74 | 0.01 (0.03) .79 |
| b | Slope \* education | --- | -0.06 (0.05) .23 | -0.06 (0.05) .23 |
| b | Slope \* height | --- | 0.00 (0.00) .28 | 0.00 (0.00) .32 |
| b | Slope \* smoking | --- | --- | 0.03 (0.04) .52 |
| b | Slope \* cardio | --- | --- | -0.06 (0.05) .21 |
| b | Slope \* diabetes | --- | --- | --- |
| a | Var (Level) | 0.58 (0.37) .12 | 0.28 (0.42) .50 | 0.25 (0.43) .56 |
| a | Var (Slope) | 0.00 (0.01) .74 | 0.00 (0.01) .75 | 0.00 (0.01) .77 |
| a | Var (Residual) | 1.05 (0.30) <.01 | 1.87 (0.24) <.01 | 1.88 (0.24) <.01 |
| a | Covar (Level, Slope) | -0.02 (0.05) .64 | 0.00 (0.05) .97 | -0.00 (0.05) .99 |
| b | Var (Level) | 14.58 (2.09) <.01 | 11.62 (1.49) <.01 | 11.55 (1.51) <.01 |
| b | Var (Slope) | 0.01 (0.01) .25 | 0.01 (0.01) .31 | 0.01 (0.01) .38 |
| b | Var (Residual) | 2.81 (0.21) <.01 | 2.80 (0.21) <.01 | 2.81 (0.22) <.01 |
| b | Covar (Level, Slope) | -0.04 (0.09) .67 | -0.01 (0.08) .92 | 0.00 (0.08) .99 |
| ab | Covar (Levels) | -0.67 (0.47) .16 | -0.32 (0.46) .48 | -0.41 (0.47) .38 |
| ab | Covar (Slopes) | 0.00 (0.00) .97 | -0.00 (0.00) .69 | -0.00 (0.01) .80 |
| ab | Covar (Residuals) | -0.21 (0.18) .26 | -0.20 (0.19) .28 | -0.20 (0.19) .29 |
|  | Correlation of Levels | -0.23 | -0.177 | -0.241 |
|  | Correlation of Slopes | 0.00 | -0.471 | -0.267 |
|  | Correlation of Residuals | -0.12 | -0.089 | -0.088 |
|  | N | 253 | 253 | 252 |
|  | occasions | 3 | 3 | 3 |
|  | parameters | 23 | 29 | 37 |
|  | LL | -2,392 | -2,368 | -2,353 |
|  | AIC | 4,830 | 4,794 | 4,781 |
|  | BIC | 4,911 | 4,897 | 4,911 |

## Summary

Study = *ILSE*; Gender = *male*; Process (a) = *tug*

Computed correlations:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus |
| Correlation of Levels | block | -0.36 | -0.45 | -0.43 |
| Correlation of Levels | fluency | -0.21 | -0.23 | . |
| Correlation of Levels | piccomp | -0.23 | -0.24 | -0.23 |
| Correlation of Levels | spatial\_ab | -0.34 | -0.43 | -0.41 |
| Correlation of Levels | symbol | -0.41 | -0.49 | -0.47 |
| Correlation of Levels | waisgeneral | -0.23 | -0.18 | -0.24 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus |
| Correlation of Slopes | block | 0.34 | 0.00 | 0.13 |
| Correlation of Slopes | fluency | 0.19 | -0.31 | . |
| Correlation of Slopes | piccomp | 0.12 | -0.12 | 0.00 |
| Correlation of Slopes | spatial\_ab | -0.10 | -0.20 | -0.12 |
| Correlation of Slopes | symbol | -0.17 | -0.53 | -0.42 |
| Correlation of Slopes | waisgeneral | 0.00 | -0.47 | -0.27 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus |
| Correlation of Residuals | block | 0.01 | 0.04 | 0.04 |
| Correlation of Residuals | fluency | -0.08 | -0.06 | . |
| Correlation of Residuals | piccomp | -0.05 | -0.03 | -0.03 |
| Correlation of Residuals | spatial\_ab | -0.00 | 0.06 | 0.05 |
| Correlation of Residuals | symbol | -0.15 | -0.08 | -0.09 |
| Correlation of Residuals | waisgeneral | -0.12 | -0.09 | -0.09 |

P-values for corresponding covariances:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus |
| Covariance of Levels | block | 0.04 | 0.10 | 0.12 |
| Covariance of Levels | fluency | 0.24 | 0.49 | . |
| Covariance of Levels | piccomp | 0.21 | 0.47 | 0.50 |
| Covariance of Levels | spatial\_ab | 0.04 | 0.10 | 0.13 |
| Covariance of Levels | symbol | 0.02 | 0.06 | 0.10 |
| Covariance of Levels | waisgeneral | 0.16 | 0.48 | 0.38 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus |
| Covariance of Slopes | block | 0.69 | 0.98 | 0.90 |
| Covariance of Slopes | fluency | 0.93 | 0.84 | . |
| Covariance of Slopes | piccomp | 0.91 | 0.92 | 0.98 |
| Covariance of Slopes | spatial\_ab | 0.88 | 0.72 | 0.85 |
| Covariance of Slopes | symbol | 0.79 | 0.60 | 0.68 |
| Covariance of Slopes | waisgeneral | 0.97 | 0.69 | 0.80 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus |
| Covariance of Residuals | block | 0.91 | 0.67 | 0.64 |
| Covariance of Residuals | fluency | 0.53 | 0.52 | . |
| Covariance of Residuals | piccomp | 0.72 | 0.74 | 0.79 |
| Covariance of Residuals | spatial\_ab | 0.99 | 0.57 | 0.64 |
| Covariance of Residuals | symbol | 0.15 | 0.31 | 0.28 |
| Covariance of Residuals | waisgeneral | 0.26 | 0.28 | 0.29 |

#Session Info

R version 3.3.1 (2016-06-21)  
Platform: x86\_64-w64-mingw32/x64 (64-bit)  
Running under: Windows >= 8 x64 (build 9200)  
  
locale:  
[1] LC\_COLLATE=English\_United States.1252 LC\_CTYPE=English\_United States.1252 LC\_MONETARY=English\_United States.1252  
[4] LC\_NUMERIC=C LC\_TIME=English\_United States.1252   
  
attached base packages:  
[1] stats graphics grDevices utils datasets methods base   
  
other attached packages:  
[1] knitr\_1.14 ggplot2\_2.1.0 magrittr\_1.5   
  
loaded via a namespace (and not attached):  
 [1] Rcpp\_0.12.7 munsell\_0.4.3 testit\_0.5 colorspace\_1.2-7 R6\_2.2.0 stringr\_1.1.0   
 [7] highr\_0.6 plyr\_1.8.4 dplyr\_0.5.0 tools\_3.3.1 DT\_0.2 grid\_3.3.1   
[13] gtable\_0.2.0 DBI\_0.5-1 htmltools\_0.3.5 yaml\_2.1.13 lazyeval\_0.2.0 assertthat\_0.1   
[19] digest\_0.6.10 tibble\_1.2 formatR\_1.4 readr\_1.0.0 tidyr\_0.6.0 htmlwidgets\_0.7   
[25] rsconnect\_0.5 evaluate\_0.10 rmarkdown\_1.1 stringi\_1.1.2 scales\_0.4.0