OCTO : Seed Report

Date: 2016-10-20

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

# Available models

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

|  |  |  |
| --- | --- | --- |
| process\_a | process\_b | n\_models |
| pef | block | 8 |
| pef | digit\_b | 6 |
| pef | digit\_f | 6 |
| pef | fig\_logic | 4 |
| pef | mir | 4 |
| pef | prose\_im | 8 |
| pef | symbol | 6 |
| study\_name | subgroup | model\_type | process\_a | process\_b | n\_models |
| octo | female | a | pef | block | 1 |
| octo | female | a | pef | digit\_b | 1 |
| octo | female | a | pef | digit\_f | 1 |
| octo | female | a | pef | fig\_logic | 1 |
| octo | female | a | pef | mir | 1 |
| octo | female | a | pef | prose\_im | 1 |
| octo | female | a | pef | symbol | 1 |
| octo | female | aeh | pef | block | 1 |
| octo | female | aeh | pef | digit\_b | 1 |
| octo | female | aeh | pef | digit\_f | 1 |
| octo | female | aeh | pef | fig\_logic | 1 |
| octo | female | aeh | pef | mir | 1 |
| octo | female | aeh | pef | prose\_im | 1 |
| octo | female | aeh | pef | symbol | 1 |
| octo | female | aehplus | pef | block | 1 |
| octo | female | aehplus | pef | digit\_b | 1 |
| octo | female | aehplus | pef | digit\_f | 1 |
| octo | female | aehplus | pef | prose\_im | 1 |
| octo | female | aehplus | pef | symbol | 1 |
| octo | female | full | pef | block | 1 |
| octo | female | full | pef | prose\_im | 1 |
| study\_name | subgroup | model\_type | process\_a | process\_b | n\_models |
| octo | male | a | pef | block | 1 |
| octo | male | a | pef | digit\_b | 1 |
| octo | male | a | pef | digit\_f | 1 |
| octo | male | a | pef | fig\_logic | 1 |
| octo | male | a | pef | mir | 1 |
| octo | male | a | pef | prose\_im | 1 |
| octo | male | a | pef | symbol | 1 |
| octo | male | aeh | pef | block | 1 |
| octo | male | aeh | pef | digit\_b | 1 |
| octo | male | aeh | pef | digit\_f | 1 |
| octo | male | aeh | pef | fig\_logic | 1 |
| octo | male | aeh | pef | mir | 1 |
| octo | male | aeh | pef | prose\_im | 1 |
| octo | male | aeh | pef | symbol | 1 |
| octo | male | aehplus | pef | block | 1 |
| octo | male | aehplus | pef | digit\_b | 1 |
| octo | male | aehplus | pef | digit\_f | 1 |
| octo | male | aehplus | pef | prose\_im | 1 |
| octo | male | aehplus | pef | symbol | 1 |
| octo | male | full | pef | block | 1 |
| octo | male | full | pef | prose\_im | 1 |

# female

Gender = *female*; Model type: *aehplus*; Process (a) = *pef*; Process (b): *block*, *digit\_b*, *digit\_f*, *fig\_logic*, *mir*, *prose\_im*, *symbol*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| process | label | block | digit\_b | digit\_f | prose\_im | symbol | mean(sd) |
| a | Level | 328.19 (8.75) <.01 | 327.58 (8.82) <.01 | 327.37 (8.78) <.01 | 327.36 (8.75) <.01 | 327.75 (8.80) <.01 | 327.65(0.34) |
| a | Slope | -7.21 (1.40) <.01 | -7.04 (1.42) <.01 | -7.01 (1.42) <.01 | -7.03 (1.41) <.01 | -7.13 (1.40) <.01 | -7.08(0.09) |
| a | Level \* age | -6.38 (1.88) <.01 | -6.30 (1.90) <.01 | -6.15 (1.89) <.01 | -6.21 (1.90) <.01 | -6.37 (1.88) <.01 | -6.28(0.10) |
| a | Level \* education | 5.51 (2.65) .04 | 5.77 (2.65) .03 | 5.56 (2.66) .04 | 5.76 (2.67) .03 | 5.64 (2.69) .04 | 5.65(0.12) |
| a | Level \* height | 2.71 (0.99) .01 | 2.61 (0.99) .01 | 2.63 (0.99) .01 | 2.63 (0.99) .01 | 2.68 (0.98) .01 | 2.65(0.04) |
| a | Level \* smoking | -35.17 (12.79) .01 | -34.62 (12.73) .01 | -34.95 (12.81) .01 | -35.27 (12.76) .01 | -35.14 (12.64) <.01 | -35.03(0.26) |
| a | Level \* cardio | 2.72 (10.13) .79 | 2.15 (10.19) .83 | 3.03 (10.23) .77 | 2.73 (10.15) .79 | 2.08 (10.17) .84 | 2.54(0.41) |
| a | Level \* diabetes | 4.02 (16.34) .81 | 3.28 (16.52) .84 | 3.40 (16.72) .84 | 1.95 (16.70) .91 | 3.77 (16.59) .82 | 3.28(0.80) |
| a | Slope \* age | 0.81 (0.36) .02 | 0.95 (0.36) .01 | 0.98 (0.35) .01 | 0.93 (0.37) .01 | 0.97 (0.35) <.01 | 0.93(0.07) |
| a | Slope \* education | -0.16 (0.45) .72 | -0.26 (0.46) .57 | -0.26 (0.46) .56 | -0.24 (0.46) .60 | -0.19 (0.47) .69 | -0.22(0.05) |
| a | Slope \* height | -0.22 (0.19) .25 | -0.21 (0.20) .27 | -0.21 (0.20) .29 | -0.21 (0.20) .29 | -0.21 (0.20) .28 | -0.21(0.00) |
| a | Slope \* smoking | -3.73 (2.06) .07 | -3.37 (2.04) .10 | -3.28 (2.09) .12 | -3.36 (2.03) .10 | -3.19 (2.05) .12 | -3.38(0.20) |
| a | Slope \* cardio | -2.74 (1.61) .09 | -2.70 (1.68) .11 | -2.82 (1.69) .09 | -2.75 (1.66) .10 | -2.84 (1.69) .09 | -2.77(0.06) |
| a | Slope \* diabetes | 3.44 (3.31) .30 | 4.09 (3.66) .26 | 3.67 (3.60) .31 | 4.10 (3.58) .25 | 3.83 (3.48) .27 | 3.83(0.28) |
| b | Level | 14.81 (0.75) <.01 | 3.86 (0.13) <.01 | 5.67 (0.12) <.01 | 11.15 (0.40) <.01 | 28.46 (1.19) <.01 | --- |
| b | Slope | -0.19 (0.10) .07 | -0.08 (0.03) <.01 | -0.07 (0.02) <.01 | -0.04 (0.07) .53 | -0.10 (0.19) .62 | --- |
| b | Level \* age | -0.59 (0.14) <.01 | -0.10 (0.02) <.01 | -0.08 (0.02) <.01 | -0.25 (0.08) <.01 | -0.80 (0.26) <.01 | --- |
| b | Level \* education | 0.78 (0.19) <.01 | 0.12 (0.04) <.01 | 0.14 (0.03) <.01 | 0.46 (0.10) <.01 | 1.66 (0.37) <.01 | --- |
| b | Level \* height | -0.02 (0.06) .80 | -0.00 (0.01) .75 | 0.01 (0.01) .46 | 0.01 (0.04) .76 | 0.08 (0.11) .48 | --- |
| b | Level \* smoking | -1.36 (0.96) .16 | -0.32 (0.19) .09 | -0.15 (0.14) .28 | 0.26 (0.49) .60 | -0.69 (1.67) .68 | --- |
| b | Level \* cardio | -0.22 (0.80) .78 | 0.06 (0.14) .69 | 0.05 (0.12) .67 | 0.21 (0.43) .61 | 0.94 (1.27) .46 | --- |
| b | Level \* diabetes | 1.66 (2.31) .47 | -0.10 (0.29) .75 | 0.08 (0.26) .76 | -1.80 (1.14) .11 | -2.41 (3.15) .44 | --- |
| b | Slope \* age | 0.01 (0.02) .73 | 0.01 (0.01) .14 | 0.00 (0.00) .52 | 0.02 (0.02) .14 | 0.00 (0.04) .98 | --- |
| b | Slope \* education | -0.04 (0.03) .19 | 0.00 (0.01) .98 | -0.01 (0.00) .01 | -0.04 (0.02) .03 | -0.05 (0.06) .43 | --- |
| b | Slope \* height | 0.01 (0.01) .10 | 0.00 (0.00) .57 | -0.00 (0.00) .38 | 0.01 (0.01) .37 | 0.01 (0.02) .43 | --- |
| b | Slope \* smoking | 0.06 (0.14) .67 | 0.04 (0.03) .12 | 0.05 (0.03) .08 | -0.13 (0.10) .18 | -0.30 (0.27) .27 | --- |
| b | Slope \* cardio | -0.18 (0.12) .12 | -0.04 (0.03) .23 | -0.00 (0.02) .84 | -0.06 (0.09) .47 | -0.78 (0.19) <.01 | --- |
| b | Slope \* diabetes | 0.07 (0.20) .71 | 0.05 (0.06) .38 | 0.01 (0.05) .91 | 0.11 (0.19) .56 | 1.76 (0.44) <.01 | --- |
| a | Var (Level) | 4208.44 (502.14) <.01 | 4241.11 (510.56) <.01 | 4245.53 (511.12) <.01 | 4267.99 (513.74) <.01 | 4257.36 (501.41) <.01 | 4244.09(22.52) |
| a | Var (Slope) | 26.21 (14.79) .08 | 29.10 (16.04) .07 | 29.67 (15.84) .06 | 29.02 (16.16) .07 | 28.33 (14.13) .04 | 28.46(1.35) |
| a | Var (Residual) | 2131.44 (186.35) <.01 | 2111.34 (184.87) <.01 | 2113.16 (184.42) <.01 | 2107.34 (186.01) <.01 | 2110.74 (182.56) <.01 | 2114.80(9.54) |
| a | Covar (Level, Slope) | -144.55 (83.22) .08 | -159.22 (86.13) .06 | -166.11 (86.49) .06 | -160.95 (87.45) .07 | -159.72 (81.41) .05 | -158.11(8.06) |
| b | Var (Level) | 30.25 (3.13) <.01 | 0.52 (0.12) <.01 | 0.55 (0.07) <.01 | 7.80 (1.04) <.01 | 67.85 (7.76) <.01 | --- |
| b | Var (Slope) | 0.15 (0.08) .05 | 0.00 (0.00) .11 | 0.01 (0.00) .04 | 0.08 (0.03) .01 | 0.41 (0.13) <.01 | --- |
| b | Var (Residual) | 10.94 (0.83) <.01 | 1.18 (0.09) <.01 | 0.61 (0.04) <.01 | 4.32 (0.38) <.01 | 27.74 (2.32) <.01 | --- |
| b | Covar (Level, Slope) | -0.83 (0.40) .04 | -0.01 (0.01) .31 | -0.04 (0.01) <.01 | -0.40 (0.15) .01 | -2.21 (0.89) .01 | --- |
| ab | Covar (Levels) | 83.65 (32.97) .01 | 8.74 (5.74) .13 | -0.26 (4.91) .96 | 28.79 (16.85) .09 | 202.30 (47.72) <.01 | --- |
| ab | Covar (Slopes) | 0.04 (0.68) .96 | 0.04 (0.12) .76 | -0.12 (0.12) .31 | -0.08 (0.54) .88 | 2.24 (1.04) .03 | --- |
| ab | Covar (Residuals) | 22.75 (9.67) .02 | 0.82 (2.44) .74 | 0.45 (1.90) .81 | 7.21 (5.67) .20 | 8.29 (13.50) .54 | --- |
|  | Correlation of Levels | 0.234 | 0.187 | -0.0054 | 0.158 | 0.376 | 0.19(0.14) |
|  | Correlation of Slopes | 0.018 | 0.153 | -0.2939 | -0.051 | 0.659 | 0.10(0.35) |
|  | Correlation of Residuals | 0.149 | 0.017 | 0.0124 | 0.076 | 0.034 | 0.06(0.06) |
|  | N | 271 | 275 | 275 | 267 | 263 | 270.20(5.22) |
|  | occasions | 5 | 5 | 5 | 5 | 5 | 5.00(0.00) |
|  | parameters | 41 | 41 | 41 | 41 | 41 | 41.00(0.00) |
|  | LL | -6,356 | -5,434 | -5,192 | -5,845 | -6,368 | -5,839( 531) |
|  | AIC | 12,794 | 10,951 | 10,465 | 11,773 | 12,817 | 11,760(1,063) |
|  | BIC | 12,941 | 11,099 | 10,614 | 11,920 | 12,964 | 11,908(1,062) |

## block

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus | full |
| a | Level | 312.13 (7.11) <.01 | 318.41 (7.77) <.01 | 328.19 (8.75) <.01 | 330.41 (20.45) <.01 |
| a | Slope | -8.86 (1.10) <.01 | -9.21 (1.12) <.01 | -7.21 (1.40) <.01 | -7.68 (3.27) .02 |
| a | Level \* age | -6.37 (1.91) <.01 | -5.57 (2.02) .01 | -6.38 (1.88) <.01 | -6.74 (1.88) <.01 |
| a | Level \* education | --- | 3.09 (2.51) .22 | 5.51 (2.65) .04 | 7.78 (3.99) .05 |
| a | Level \* height | --- | 2.62 (1.06) .01 | 2.71 (0.99) .01 | --- |
| a | Level \* smoking | --- | --- | -35.17 (12.79) .01 | -20.00 (6.33) <.01 |
| a | Level \* cardio | --- | --- | 2.72 (10.13) .79 | --- |
| a | Level \* diabetes | --- | --- | 4.02 (16.34) .81 | --- |
| a | Slope \* age | 0.96 (0.36) .01 | 0.87 (0.35) .01 | 0.81 (0.36) .02 | 0.83 (0.36) .02 |
| a | Slope \* education | --- | -0.31 (0.38) .41 | -0.16 (0.45) .72 | 0.04 (0.65) .95 |
| a | Slope \* height | --- | -0.24 (0.20) .24 | -0.22 (0.19) .25 | --- |
| a | Slope \* smoking | --- | --- | -3.73 (2.06) .07 | -1.83 (1.16) .11 |
| a | Slope \* cardio | --- | --- | -2.74 (1.61) .09 | --- |
| a | Slope \* diabetes | --- | --- | 3.44 (3.31) .30 | --- |
| b | Level | 14.34 (0.58) <.01 | 14.35 (0.66) <.01 | 14.81 (0.75) <.01 | 17.75 (1.66) <.01 |
| b | Slope | -0.27 (0.08) <.01 | -0.25 (0.09) <.01 | -0.19 (0.10) .07 | -0.64 (0.26) .01 |
| b | Level \* age | -0.61 (0.14) <.01 | -0.55 (0.16) <.01 | -0.59 (0.14) <.01 | -0.57 (0.14) <.01 |
| b | Level \* education | --- | 0.70 (0.21) <.01 | 0.78 (0.19) <.01 | 0.90 (0.28) <.01 |
| b | Level \* height | --- | -0.01 (0.07) .85 | -0.02 (0.06) .80 | --- |
| b | Level \* smoking | --- | --- | -1.36 (0.96) .16 | -1.14 (0.47) .02 |
| b | Level \* cardio | --- | --- | -0.22 (0.80) .78 | --- |
| b | Level \* diabetes | --- | --- | 1.66 (2.31) .47 | --- |
| b | Slope \* age | 0.00 (0.02) .92 | 0.00 (0.02) .81 | 0.01 (0.02) .73 | 0.00 (0.02) .99 |
| b | Slope \* education | --- | -0.04 (0.04) .32 | -0.04 (0.03) .19 | -0.02 (0.05) .70 |
| b | Slope \* height | --- | 0.01 (0.01) .10 | 0.01 (0.01) .10 | --- |
| b | Slope \* smoking | --- | --- | 0.06 (0.14) .67 | 0.09 (0.08) .28 |
| b | Slope \* cardio | --- | --- | -0.18 (0.12) .12 | --- |
| b | Slope \* diabetes | --- | --- | 0.07 (0.20) .71 | --- |
| a | Var (Level) | 4810.25 (557.67) <.01 | 4414.60 (523.24) <.01 | 4208.44 (502.14) <.01 | 4465.51 (547.54) <.01 |
| a | Var (Slope) | 32.16 (15.87) .04 | 29.50 (15.72) .06 | 26.21 (14.79) .08 | 28.34 (15.24) .06 |
| a | Var (Residual) | 2116.72 (185.76) <.01 | 2139.35 (188.77) <.01 | 2131.44 (186.35) <.01 | 2128.65 (187.41) <.01 |
| a | Covar (Level, Slope) | -157.51 (97.50) .11 | -133.19 (92.99) .15 | -144.55 (83.22) .08 | -148.63 (93.39) .11 |
| b | Var (Level) | 34.18 (3.29) <.01 | 30.61 (3.30) <.01 | 30.25 (3.13) <.01 | 30.53 (3.18) <.01 |
| b | Var (Slope) | 0.17 (0.07) .01 | 0.16 (0.07) .03 | 0.15 (0.08) .05 | 0.16 (0.07) .02 |
| b | Var (Residual) | 10.74 (0.80) <.01 | 10.95 (0.84) <.01 | 10.94 (0.83) <.01 | 10.75 (0.80) <.01 |
| b | Covar (Level, Slope) | -0.99 (0.38) .01 | -0.86 (0.38) .02 | -0.83 (0.40) .04 | -0.82 (0.37) .03 |
| ab | Covar (Levels) | 116.45 (37.13) <.01 | 91.86 (35.32) .01 | 83.65 (32.97) .01 | 88.69 (34.78) .01 |
| ab | Covar (Slopes) | 0.26 (0.68) .70 | 0.27 (0.64) .68 | 0.04 (0.68) .96 | 0.14 (0.70) .84 |
| ab | Covar (Residuals) | 22.30 (9.42) .02 | 23.17 (9.72) .02 | 22.75 (9.67) .02 | 21.56 (9.44) .02 |
|  | Correlation of Levels | 0.29 | 0.25 | 0.234 | 0.240 |
|  | Correlation of Slopes | 0.11 | 0.12 | 0.018 | 0.065 |
|  | Correlation of Residuals | 0.15 | 0.15 | 0.149 | 0.143 |
|  | N | 293 | 272 | 271 | 289 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | NA | 41 | 37 |
|  | LL | -6,578 | -6,378 | -6,356 | -6,514 |
|  | AIC | 13,198 | 12,814 | 12,794 | 13,101 |
|  | BIC | 13,275 | 12,919 | 12,941 | 13,237 |

## digit\_b

Gender = *female*; Process (a) = *pef*; Process (b) = *digit\_b*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 310.92 (7.16) <.01 | 317.61 (7.89) <.01 | 327.58 (8.82) <.01 |
| a | Slope | -8.50 (1.10) <.01 | -8.93 (1.11) <.01 | -7.04 (1.42) <.01 |
| a | Level \* age | -5.83 (1.93) <.01 | -5.45 (2.07) .01 | -6.30 (1.90) <.01 |
| a | Level \* education | --- | 3.44 (2.53) .17 | 5.77 (2.65) .03 |
| a | Level \* height | --- | 2.53 (1.06) .02 | 2.61 (0.99) .01 |
| a | Level \* smoking | --- | --- | -34.62 (12.73) .01 |
| a | Level \* cardio | --- | --- | 2.15 (10.19) .83 |
| a | Level \* diabetes | --- | --- | 3.28 (16.52) .84 |
| a | Slope \* age | 1.08 (0.36) <.01 | 1.00 (0.34) <.01 | 0.95 (0.36) .01 |
| a | Slope \* education | --- | -0.38 (0.38) .32 | -0.26 (0.46) .57 |
| a | Slope \* height | --- | -0.23 (0.21) .27 | -0.21 (0.20) .27 |
| a | Slope \* smoking | --- | --- | -3.37 (2.04) .10 |
| a | Slope \* cardio | --- | --- | -2.70 (1.68) .11 |
| a | Slope \* diabetes | --- | --- | 4.09 (3.66) .26 |
| b | Level | 3.73 (0.10) <.01 | 3.79 (0.12) <.01 | 3.86 (0.13) <.01 |
| b | Slope | -0.08 (0.02) <.01 | -0.09 (0.02) <.01 | -0.08 (0.03) <.01 |
| b | Level \* age | -0.07 (0.02) <.01 | -0.09 (0.03) <.01 | -0.10 (0.02) <.01 |
| b | Level \* education | --- | 0.10 (0.03) .01 | 0.12 (0.04) <.01 |
| b | Level \* height | --- | -0.00 (0.01) .75 | -0.00 (0.01) .75 |
| b | Level \* smoking | --- | --- | -0.32 (0.19) .09 |
| b | Level \* cardio | --- | --- | 0.06 (0.14) .69 |
| b | Level \* diabetes | --- | --- | -0.10 (0.29) .75 |
| b | Slope \* age | 0.00 (0.00) .40 | 0.01 (0.01) .15 | 0.01 (0.01) .14 |
| b | Slope \* education | --- | 0.00 (0.01) .56 | 0.00 (0.01) .98 |
| b | Slope \* height | --- | 0.00 (0.00) .59 | 0.00 (0.00) .57 |
| b | Slope \* smoking | --- | --- | 0.04 (0.03) .12 |
| b | Slope \* cardio | --- | --- | -0.04 (0.03) .23 |
| b | Slope \* diabetes | --- | --- | 0.05 (0.06) .38 |
| a | Var (Level) | 4826.43 (560.12) <.01 | 4445.65 (530.00) <.01 | 4241.11 (510.56) <.01 |
| a | Var (Slope) | 34.60 (16.27) .03 | 32.53 (16.56) .05 | 29.10 (16.04) .07 |
| a | Var (Residual) | 2106.44 (185.04) <.01 | 2119.80 (185.45) <.01 | 2111.34 (184.87) <.01 |
| a | Covar (Level, Slope) | -173.90 (97.72) .07 | -148.15 (95.57) .12 | -159.22 (86.13) .06 |
| b | Var (Level) | 0.59 (0.13) <.01 | 0.53 (0.15) <.01 | 0.52 (0.12) <.01 |
| b | Var (Slope) | 0.00 (0.00) .33 | 0.00 (0.00) .29 | 0.00 (0.00) .11 |
| b | Var (Residual) | 1.16 (0.09) <.01 | 1.18 (0.10) <.01 | 1.18 (0.09) <.01 |
| b | Covar (Level, Slope) | -0.01 (0.02) .39 | -0.02 (0.02) .32 | -0.01 (0.01) .31 |
| ab | Covar (Levels) | 10.77 (6.50) .10 | 10.36 (6.31) .10 | 8.74 (5.74) .13 |
| ab | Covar (Slopes) | 0.02 (0.18) .92 | 0.05 (0.16) .77 | 0.04 (0.12) .76 |
| ab | Covar (Residuals) | 0.33 (2.56) .90 | 0.51 (2.67) .85 | 0.82 (2.44) .74 |
|  | Correlation of Levels | 0.2026 | 0.21 | 0.187 |
|  | Correlation of Slopes | 0.0559 | 0.18 | 0.153 |
|  | Correlation of Residuals | 0.0066 | 0.01 | 0.017 |
|  | N | 299 | 276 | 275 |
|  | occasions | 5 | 5 | 5 |
|  | parameters | NA | NA | 41 |
|  | LL | -5,619 | -5,455 | -5,434 |
|  | AIC | 11,280 | 10,967 | 10,951 |
|  | BIC | 11,358 | 11,072 | 11,099 |

## digit\_f

Gender = *female*; Process (a) = *pef*; Process (b) = *digit\_f*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 317.58 (7.80) <.01 | 317.58 (7.80) <.01 | 327.37 (8.78) <.01 |
| a | Slope | -8.87 (1.11) <.01 | -8.87 (1.11) <.01 | -7.01 (1.42) <.01 |
| a | Level \* age | -5.27 (2.06) .01 | -5.27 (2.06) .01 | -6.15 (1.89) <.01 |
| a | Level \* education | 3.15 (2.52) .21 | 3.15 (2.52) .21 | 5.56 (2.66) .04 |
| a | Level \* height | 2.55 (1.06) .02 | 2.55 (1.06) .02 | 2.63 (0.99) .01 |
| a | Level \* smoking | --- | --- | -34.95 (12.81) .01 |
| a | Level \* cardio | --- | --- | 3.03 (10.23) .77 |
| a | Level \* diabetes | --- | --- | 3.40 (16.72) .84 |
| a | Slope \* age | 1.02 (0.34) <.01 | 1.02 (0.34) <.01 | 0.98 (0.35) .01 |
| a | Slope \* education | -0.38 (0.38) .32 | -0.38 (0.38) .32 | -0.26 (0.46) .56 |
| a | Slope \* height | -0.23 (0.21) .28 | -0.23 (0.21) .28 | -0.21 (0.20) .29 |
| a | Slope \* smoking | --- | --- | -3.28 (2.09) .12 |
| a | Slope \* cardio | --- | --- | -2.82 (1.69) .09 |
| a | Slope \* diabetes | --- | --- | 3.67 (3.60) .31 |
| b | Level | 5.66 (0.11) <.01 | 5.66 (0.11) <.01 | 5.67 (0.12) <.01 |
| b | Slope | -0.06 (0.02) <.01 | -0.06 (0.02) <.01 | -0.07 (0.02) <.01 |
| b | Level \* age | -0.08 (0.02) <.01 | -0.08 (0.02) <.01 | -0.08 (0.02) <.01 |
| b | Level \* education | 0.13 (0.03) <.01 | 0.13 (0.03) <.01 | 0.14 (0.03) <.01 |
| b | Level \* height | 0.01 (0.01) .49 | 0.01 (0.01) .49 | 0.01 (0.01) .46 |
| b | Level \* smoking | --- | --- | -0.15 (0.14) .28 |
| b | Level \* cardio | --- | --- | 0.05 (0.12) .67 |
| b | Level \* diabetes | --- | --- | 0.08 (0.26) .76 |
| b | Slope \* age | 0.00 (0.00) .65 | 0.00 (0.00) .65 | 0.00 (0.00) .52 |
| b | Slope \* education | -0.01 (0.00) .05 | -0.01 (0.00) .05 | -0.01 (0.00) .01 |
| b | Slope \* height | -0.00 (0.00) .40 | -0.00 (0.00) .40 | -0.00 (0.00) .38 |
| b | Slope \* smoking | --- | --- | 0.05 (0.03) .08 |
| b | Slope \* cardio | --- | --- | -0.00 (0.02) .84 |
| b | Slope \* diabetes | --- | --- | 0.01 (0.05) .91 |
| a | Var (Level) | 4452.36 (532.25) <.01 | 4452.36 (532.25) <.01 | 4245.53 (511.12) <.01 |
| a | Var (Slope) | 33.19 (16.50) .04 | 33.19 (16.50) .04 | 29.67 (15.84) .06 |
| a | Var (Residual) | 2121.24 (185.44) <.01 | 2121.24 (185.44) <.01 | 2113.16 (184.42) <.01 |
| a | Covar (Level, Slope) | -156.21 (95.74) .10 | -156.21 (95.74) .10 | -166.11 (86.49) .06 |
| b | Var (Level) | 0.55 (0.07) <.01 | 0.55 (0.07) <.01 | 0.55 (0.07) <.01 |
| b | Var (Slope) | 0.01 (0.00) .04 | 0.01 (0.00) .04 | 0.01 (0.00) .04 |
| b | Var (Residual) | 0.61 (0.04) <.01 | 0.61 (0.04) <.01 | 0.61 (0.04) <.01 |
| b | Covar (Level, Slope) | -0.04 (0.01) .01 | -0.04 (0.01) .01 | -0.04 (0.01) <.01 |
| ab | Covar (Levels) | 1.31 (5.01) .79 | 1.31 (5.01) .79 | -0.26 (4.91) .96 |
| ab | Covar (Slopes) | -0.13 (0.12) .29 | -0.13 (0.12) .29 | -0.12 (0.12) .31 |
| ab | Covar (Residuals) | 0.31 (1.92) .87 | 0.31 (1.92) .87 | 0.45 (1.90) .81 |
|  | Correlation of Levels | 0.0266 | 0.0266 | -0.0054 |
|  | Correlation of Slopes | -0.2913 | -0.2913 | -0.2939 |
|  | Correlation of Residuals | 0.0086 | 0.0086 | 0.0124 |
|  | N | 276 | 276 | 275 |
|  | occasions | 5 | 5 | 5 |
|  | parameters | NA | NA | 41 |
|  | LL | -5,211 | -5,211 | -5,192 |
|  | AIC | 10,480 | 10,480 | 10,465 |
|  | BIC | 10,585 | 10,585 | 10,614 |

## fig\_logic

Gender = *female*; Process (a) = *pef*; Process (b) = *fig\_logic*

|  |  |  |  |
| --- | --- | --- | --- |
| process | label | a | aeh |
| a | Level | 311.71 (7.14) <.01 | 318.23 (7.80) <.01 |
| a | Slope | -8.61 (1.11) <.01 | -8.98 (1.12) <.01 |
| a | Level \* age | -5.98 (1.92) <.01 | -5.44 (2.05) .01 |
| a | Level \* education | --- | 3.23 (2.51) .20 |
| a | Level \* height | --- | 2.58 (1.06) .01 |
| a | Level \* smoking | --- | --- |
| a | Level \* cardio | --- | --- |
| a | Level \* diabetes | --- | --- |
| a | Slope \* age | 1.10 (0.36) <.01 | 1.00 (0.34) <.01 |
| a | Slope \* education | --- | -0.37 (0.38) .33 |
| a | Slope \* height | --- | -0.24 (0.21) .25 |
| a | Slope \* smoking | --- | --- |
| a | Slope \* cardio | --- | --- |
| a | Slope \* diabetes | --- | --- |
| b | Level | 16.57 (0.39) <.01 | 16.66 (0.40) <.01 |
| b | Slope | -0.07 (0.07) .33 | -0.05 (0.08) .52 |
| b | Level \* age | -0.25 (0.09) <.01 | -0.26 (0.10) .01 |
| b | Level \* education | --- | 0.22 (0.12) .07 |
| b | Level \* height | --- | -0.01 (0.05) .74 |
| b | Level \* smoking | --- | --- |
| b | Level \* cardio | --- | --- |
| b | Level \* diabetes | --- | --- |
| b | Slope \* age | -0.00 (0.02) .85 | -0.00 (0.02) .85 |
| b | Slope \* education | --- | -0.02 (0.03) .51 |
| b | Slope \* height | --- | 0.01 (0.01) .45 |
| b | Slope \* smoking | --- | --- |
| b | Slope \* cardio | --- | --- |
| b | Slope \* diabetes | --- | --- |
| a | Var (Level) | 4837.50 (557.41) <.01 | 4451.45 (528.76) <.01 |
| a | Var (Slope) | 34.69 (16.31) .03 | 32.45 (16.52) .05 |
| a | Var (Residual) | 2103.22 (184.08) <.01 | 2119.44 (185.06) <.01 |
| a | Covar (Level, Slope) | -176.36 (98.13) .07 | -151.03 (95.99) .12 |
| b | Var (Level) | 8.59 (1.36) <.01 | 7.76 (1.21) <.01 |
| b | Var (Slope) | 0.08 (0.04) .07 | 0.09 (0.05) .06 |
| b | Var (Residual) | 8.03 (0.63) <.01 | 8.02 (0.60) <.01 |
| b | Covar (Level, Slope) | -0.36 (0.19) .06 | -0.36 (0.18) .05 |
| ab | Covar (Levels) | 49.67 (22.80) .03 | 40.41 (23.29) .08 |
| ab | Covar (Slopes) | 0.09 (0.69) .90 | 0.10 (0.72) .88 |
| ab | Covar (Residuals) | 3.83 (7.91) .63 | 3.09 (8.14) .70 |
|  | Correlation of Levels | 0.244 | 0.217 |
|  | Correlation of Slopes | 0.053 | 0.062 |
|  | Correlation of Residuals | 0.029 | 0.024 |
|  | N | 284 | 268 |
|  | occasions | 5 | 5 |
|  | parameters | NA | NA |
|  | LL | -6,051 | -5,892 |
|  | AIC | 12,144 | 11,842 |
|  | BIC | 12,221 | 11,946 |

## mir

Gender = *female*; Process (a) = *pef*; Process (b) = *mir*

|  |  |  |  |
| --- | --- | --- | --- |
| process | label | a | aeh |
| a | Level | 311.04 (7.11) <.01 | 317.75 (7.82) <.01 |
| a | Slope | -8.41 (1.10) <.01 | -8.90 (1.10) <.01 |
| a | Level \* age | -5.93 (1.93) <.01 | -5.41 (2.06) .01 |
| a | Level \* education | --- | 3.29 (2.51) .19 |
| a | Level \* height | --- | 2.52 (1.06) .02 |
| a | Level \* smoking | --- | --- |
| a | Level \* cardio | --- | --- |
| a | Level \* diabetes | --- | --- |
| a | Slope \* age | 1.00 (0.38) .01 | 0.92 (0.37) .01 |
| a | Slope \* education | --- | -0.26 (0.38) .50 |
| a | Slope \* height | --- | -0.24 (0.21) .25 |
| a | Slope \* smoking | --- | --- |
| a | Slope \* cardio | --- | --- |
| a | Slope \* diabetes | --- | --- |
| b | Level | 7.62 (0.19) <.01 | 7.79 (0.18) <.01 |
| b | Slope | -0.06 (0.05) .22 | -0.05 (0.05) .28 |
| b | Level \* age | -0.15 (0.05) <.01 | -0.16 (0.05) <.01 |
| b | Level \* education | --- | 0.03 (0.07) .68 |
| b | Level \* height | --- | -0.01 (0.02) .45 |
| b | Level \* smoking | --- | --- |
| b | Level \* cardio | --- | --- |
| b | Level \* diabetes | --- | --- |
| b | Slope \* age | -0.02 (0.01) .12 | -0.02 (0.01) .18 |
| b | Slope \* education | --- | -0.01 (0.02) .71 |
| b | Slope \* height | --- | 0.00 (0.01) .38 |
| b | Slope \* smoking | --- | --- |
| b | Slope \* cardio | --- | --- |
| b | Slope \* diabetes | --- | --- |
| a | Var (Level) | 4855.37 (562.46) <.01 | 4455.71 (528.11) <.01 |
| a | Var (Slope) | 32.46 (16.64) .05 | 30.44 (16.47) .06 |
| a | Var (Residual) | 2112.86 (185.23) <.01 | 2127.15 (186.88) <.01 |
| a | Covar (Level, Slope) | -166.05 (101.90) .10 | -138.59 (97.13) .15 |
| b | Var (Level) | 3.18 (0.53) <.01 | 2.44 (0.48) <.01 |
| b | Var (Slope) | 0.09 (0.02) <.01 | 0.09 (0.02) <.01 |
| b | Var (Residual) | 1.88 (0.16) <.01 | 1.85 (0.17) <.01 |
| b | Covar (Level, Slope) | -0.03 (0.07) .66 | -0.02 (0.07) .81 |
| ab | Covar (Levels) | 19.86 (12.58) .11 | 13.27 (10.63) .21 |
| ab | Covar (Slopes) | 0.42 (0.43) .33 | 0.44 (0.44) .32 |
| ab | Covar (Residuals) | 3.65 (3.68) .32 | 3.47 (3.92) .38 |
|  | Correlation of Levels | 0.160 | 0.127 |
|  | Correlation of Slopes | 0.244 | 0.263 |
|  | Correlation of Residuals | 0.058 | 0.055 |
|  | N | 293 | 271 |
|  | occasions | 5 | 5 |
|  | parameters | NA | NA |
|  | LL | -5,878 | -5,691 |
|  | AIC | 11,799 | 11,439 |
|  | BIC | 11,876 | 11,544 |

## prose\_im

Gender = *female*; Process (a) = *pef*; Process (b) = *prose\_im*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus | full |
| a | Level | 310.75 (7.12) <.01 | 317.44 (7.80) <.01 | 327.36 (8.75) <.01 | 337.33 (26.67) <.01 |
| a | Slope | -8.45 (1.11) <.01 | -8.90 (1.12) <.01 | -7.03 (1.41) <.01 | -9.23 (3.68) .01 |
| a | Level \* age | -5.87 (1.91) <.01 | -5.38 (2.05) .01 | -6.21 (1.90) <.01 | -15.85 (8.10) .05 |
| a | Level \* education | --- | 3.28 (2.54) .20 | 5.76 (2.67) .03 | -1.13 (11.90) .92 |
| a | Level \* height | --- | 2.54 (1.06) .02 | 2.63 (0.99) .01 | --- |
| a | Level \* smoking | --- | --- | -35.27 (12.76) .01 | --- |
| a | Level \* cardio | --- | --- | 2.73 (10.15) .79 | --- |
| a | Level \* diabetes | --- | --- | 1.95 (16.70) .91 | --- |
| a | Slope \* age | 1.08 (0.37) <.01 | 0.99 (0.36) .01 | 0.93 (0.37) .01 | 1.10 (1.40) .43 |
| a | Slope \* education | --- | -0.34 (0.38) .36 | -0.24 (0.46) .60 | -0.76 (1.52) .62 |
| a | Slope \* height | --- | -0.23 (0.21) .27 | -0.21 (0.20) .29 | --- |
| a | Slope \* smoking | --- | --- | -3.36 (2.03) .10 | --- |
| a | Slope \* cardio | --- | --- | -2.75 (1.66) .10 | --- |
| a | Slope \* diabetes | --- | --- | 4.10 (3.58) .25 | --- |
| b | Level | 11.13 (0.31) <.01 | 11.30 (0.34) <.01 | 11.15 (0.40) <.01 | 13.17 (1.08) <.01 |
| b | Slope | -0.12 (0.06) .04 | -0.10 (0.05) .06 | -0.04 (0.07) .53 | -0.20 (0.17) .24 |
| b | Level \* age | -0.27 (0.08) <.01 | -0.28 (0.08) <.01 | -0.25 (0.08) <.01 | -0.39 (0.28) .17 |
| b | Level \* education | --- | 0.47 (0.11) <.01 | 0.46 (0.10) <.01 | -0.06 (0.49) .91 |
| b | Level \* height | --- | 0.01 (0.04) .79 | 0.01 (0.04) .76 | --- |
| b | Level \* smoking | --- | --- | 0.26 (0.49) .60 | --- |
| b | Level \* cardio | --- | --- | 0.21 (0.43) .61 | --- |
| b | Level \* diabetes | --- | --- | -1.80 (1.14) .11 | --- |
| b | Slope \* age | 0.02 (0.02) .17 | 0.03 (0.01) .06 | 0.02 (0.02) .14 | -0.04 (0.07) .60 |
| b | Slope \* education | --- | -0.05 (0.02) .01 | -0.04 (0.02) .03 | -0.05 (0.08) .51 |
| b | Slope \* height | --- | 0.01 (0.01) .35 | 0.01 (0.01) .37 | --- |
| b | Slope \* smoking | --- | --- | -0.13 (0.10) .18 | --- |
| b | Slope \* cardio | --- | --- | -0.06 (0.09) .47 | --- |
| b | Slope \* diabetes | --- | --- | 0.11 (0.19) .56 | --- |
| a | Var (Level) | 4855.17 (560.20) <.01 | 4471.46 (532.50) <.01 | 4267.99 (513.74) <.01 | 4735.04 (558.71) <.01 |
| a | Var (Slope) | 34.86 (16.30) .03 | 32.86 (16.67) .05 | 29.02 (16.16) .07 | 34.21 (17.33) .05 |
| a | Var (Residual) | 2097.00 (185.26) <.01 | 2111.63 (186.41) <.01 | 2107.34 (186.01) <.01 | 2095.59 (185.44) <.01 |
| a | Covar (Level, Slope) | -172.74 (97.64) .08 | -148.82 (96.42) .12 | -160.95 (87.45) .07 | -166.64 (99.86) .10 |
| b | Var (Level) | 9.71 (1.18) <.01 | 8.00 (1.02) <.01 | 7.80 (1.04) <.01 | 7.98 (1.01) <.01 |
| b | Var (Slope) | 0.11 (0.04) .01 | 0.09 (0.03) .01 | 0.08 (0.03) .01 | 0.08 (0.03) .01 |
| b | Var (Residual) | 4.35 (0.38) <.01 | 4.33 (0.38) <.01 | 4.32 (0.38) <.01 | 4.33 (0.37) <.01 |
| b | Covar (Level, Slope) | -0.54 (0.18) <.01 | -0.42 (0.15) <.01 | -0.40 (0.15) .01 | -0.39 (0.14) .01 |
| ab | Covar (Levels) | 33.88 (18.89) .07 | 23.60 (17.91) .19 | 28.79 (16.85) .09 | 24.09 (17.44) .17 |
| ab | Covar (Slopes) | 0.11 (0.56) .85 | 0.10 (0.57) .86 | -0.08 (0.54) .88 | -0.01 (0.52) .99 |
| ab | Covar (Residuals) | 7.21 (5.58) .20 | 7.11 (6.22) .25 | 7.21 (5.67) .20 | 6.29 (5.61) .26 |
|  | Correlation of Levels | 0.156 | 0.125 | 0.158 | 0.1240 |
|  | Correlation of Slopes | 0.055 | 0.059 | -0.051 | -0.0035 |
|  | Correlation of Residuals | 0.076 | 0.074 | 0.076 | 0.0661 |
|  | N | 289 | 268 | 267 | 286 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | NA | NA | 41 | NA |
|  | LL | -6,071 | -5,868 | -5,845 | -6,033 |
|  | AIC | 12,185 | 11,794 | 11,773 | 12,157 |
|  | BIC | 12,262 | 11,898 | 11,920 | 12,321 |

## symbol

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 310.77 (7.14) <.01 | 317.53 (7.81) <.01 | 327.75 (8.80) <.01 |
| a | Slope | -8.43 (1.10) <.01 | -8.93 (1.08) <.01 | -7.13 (1.40) <.01 |
| a | Level \* age | -6.17 (1.91) <.01 | -5.53 (2.03) .01 | -6.37 (1.88) <.01 |
| a | Level \* education | --- | 3.21 (2.56) .21 | 5.64 (2.69) .04 |
| a | Level \* height | --- | 2.59 (1.05) .01 | 2.68 (0.98) .01 |
| a | Level \* smoking | --- | --- | -35.14 (12.64) <.01 |
| a | Level \* cardio | --- | --- | 2.08 (10.17) .84 |
| a | Level \* diabetes | --- | --- | 3.77 (16.59) .82 |
| a | Slope \* age | 1.12 (0.35) <.01 | 1.03 (0.33) <.01 | 0.97 (0.35) <.01 |
| a | Slope \* education | --- | -0.28 (0.40) .49 | -0.19 (0.47) .69 |
| a | Slope \* height | --- | -0.24 (0.21) .26 | -0.21 (0.20) .28 |
| a | Slope \* smoking | --- | --- | -3.19 (2.05) .12 |
| a | Slope \* cardio | --- | --- | -2.84 (1.69) .09 |
| a | Slope \* diabetes | --- | --- | 3.83 (3.48) .27 |
| b | Level | 28.41 (1.01) <.01 | 28.60 (1.07) <.01 | 28.46 (1.19) <.01 |
| b | Slope | -0.49 (0.15) <.01 | -0.49 (0.15) <.01 | -0.10 (0.19) .62 |
| b | Level \* age | -0.90 (0.26) <.01 | -0.81 (0.28) <.01 | -0.80 (0.26) <.01 |
| b | Level \* education | --- | 1.57 (0.37) <.01 | 1.66 (0.37) <.01 |
| b | Level \* height | --- | 0.08 (0.12) .52 | 0.08 (0.11) .48 |
| b | Level \* smoking | --- | --- | -0.69 (1.67) .68 |
| b | Level \* cardio | --- | --- | 0.94 (1.27) .46 |
| b | Level \* diabetes | --- | --- | -2.41 (3.15) .44 |
| b | Slope \* age | 0.01 (0.04) .84 | 0.02 (0.04) .62 | 0.00 (0.04) .98 |
| b | Slope \* education | --- | -0.03 (0.06) .61 | -0.05 (0.06) .43 |
| b | Slope \* height | --- | 0.01 (0.02) .56 | 0.01 (0.02) .43 |
| b | Slope \* smoking | --- | --- | -0.30 (0.27) .27 |
| b | Slope \* cardio | --- | --- | -0.78 (0.19) <.01 |
| b | Slope \* diabetes | --- | --- | 1.76 (0.44) <.01 |
| a | Var (Level) | 4843.85 (550.92) <.01 | 4462.18 (518.63) <.01 | 4257.36 (501.41) <.01 |
| a | Var (Slope) | 32.79 (14.30) .02 | 31.45 (14.50) .03 | 28.33 (14.13) .04 |
| a | Var (Residual) | 2111.20 (183.83) <.01 | 2120.80 (184.28) <.01 | 2110.74 (182.56) <.01 |
| a | Covar (Level, Slope) | -170.91 (92.41) .06 | -150.20 (90.32) .10 | -159.72 (81.41) .05 |
| b | Var (Level) | 84.39 (9.01) <.01 | 67.92 (7.94) <.01 | 67.85 (7.76) <.01 |
| b | Var (Slope) | 0.62 (0.16) <.01 | 0.62 (0.15) <.01 | 0.41 (0.13) <.01 |
| b | Var (Residual) | 28.13 (2.37) <.01 | 27.89 (2.33) <.01 | 27.74 (2.32) <.01 |
| b | Covar (Level, Slope) | -3.04 (0.94) <.01 | -2.66 (0.87) <.01 | -2.21 (0.89) .01 |
| ab | Covar (Levels) | 247.25 (53.52) <.01 | 203.08 (47.84) <.01 | 202.30 (47.72) <.01 |
| ab | Covar (Slopes) | 3.00 (1.09) .01 | 3.02 (1.10) .01 | 2.24 (1.04) .03 |
| ab | Covar (Residuals) | 9.30 (13.79) .50 | 9.97 (14.57) .49 | 8.29 (13.50) .54 |
|  | Correlation of Levels | 0.387 | 0.369 | 0.376 |
|  | Correlation of Slopes | 0.667 | 0.684 | 0.659 |
|  | Correlation of Residuals | 0.038 | 0.041 | 0.034 |
|  | N | 278 | 264 | 263 |
|  | occasions | 5 | 5 | 5 |
|  | parameters | NA | NA | 41 |
|  | LL | -6,592 | -6,397 | -6,368 |
|  | AIC | 13,225 | 12,852 | 12,817 |
|  | BIC | 13,302 | 12,955 | 12,964 |

## Summary

Study = *OCTO*; Gender = *female*; Process (a) = *pef*

Computed correlations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus | full |
| Correlation of Levels | block | 0.29 | 0.25 | 0.23 | 0.24 |
| Correlation of Levels | digit\_b | 0.20 | 0.21 | 0.19 | . |
| Correlation of Levels | digit\_f | 0.03 | 0.03 | -0.01 | . |
| Correlation of Levels | fig\_logic | 0.24 | 0.22 | . | . |
| Correlation of Levels | mir | 0.16 | 0.13 | . | . |
| Correlation of Levels | prose\_im | 0.16 | 0.12 | 0.16 | 0.12 |
| Correlation of Levels | symbol | 0.39 | 0.37 | 0.38 | . |
| label | process\_b | a | aeh | aehplus | full |
| Correlation of Slopes | block | 0.11 | 0.12 | 0.02 | 0.06 |
| Correlation of Slopes | digit\_b | 0.06 | 0.18 | 0.15 | . |
| Correlation of Slopes | digit\_f | -0.29 | -0.29 | -0.29 | . |
| Correlation of Slopes | fig\_logic | 0.05 | 0.06 | . | . |
| Correlation of Slopes | mir | 0.24 | 0.26 | . | . |
| Correlation of Slopes | prose\_im | 0.05 | 0.06 | -0.05 | -0.00 |
| Correlation of Slopes | symbol | 0.67 | 0.68 | 0.66 | . |
| label | process\_b | a | aeh | aehplus | full |
| Correlation of Residuals | block | 0.15 | 0.15 | 0.15 | 0.14 |
| Correlation of Residuals | digit\_b | 0.01 | 0.01 | 0.02 | . |
| Correlation of Residuals | digit\_f | 0.01 | 0.01 | 0.01 | . |
| Correlation of Residuals | fig\_logic | 0.03 | 0.02 | . | . |
| Correlation of Residuals | mir | 0.06 | 0.06 | . | . |
| Correlation of Residuals | prose\_im | 0.08 | 0.07 | 0.08 | 0.07 |
| Correlation of Residuals | symbol | 0.04 | 0.04 | 0.03 | . |

P-values for corresponding covariances:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus | full |
| Covariance of Levels | block | 0.00 | 0.01 | 0.01 | 0.01 |
| Covariance of Levels | digit\_b | 0.10 | 0.10 | 0.13 | . |
| Covariance of Levels | digit\_f | 0.79 | 0.79 | 0.96 | . |
| Covariance of Levels | fig\_logic | 0.03 | 0.08 | . | . |
| Covariance of Levels | mir | 0.11 | 0.21 | . | . |
| Covariance of Levels | prose\_im | 0.07 | 0.19 | 0.09 | 0.17 |
| Covariance of Levels | symbol | 0.00 | 0.00 | 0.00 | . |
| label | process\_b | a | aeh | aehplus | full |
| Covariance of Slopes | block | 0.70 | 0.68 | 0.96 | 0.84 |
| Covariance of Slopes | digit\_b | 0.92 | 0.77 | 0.76 | . |
| Covariance of Slopes | digit\_f | 0.29 | 0.29 | 0.31 | . |
| Covariance of Slopes | fig\_logic | 0.90 | 0.88 | . | . |
| Covariance of Slopes | mir | 0.33 | 0.32 | . | . |
| Covariance of Slopes | prose\_im | 0.85 | 0.86 | 0.88 | 0.99 |
| Covariance of Slopes | symbol | 0.01 | 0.01 | 0.03 | . |
| label | process\_b | a | aeh | aehplus | full |
| Covariance of Residuals | block | 0.02 | 0.02 | 0.02 | 0.02 |
| Covariance of Residuals | digit\_b | 0.90 | 0.85 | 0.74 | . |
| Covariance of Residuals | digit\_f | 0.87 | 0.87 | 0.81 | . |
| Covariance of Residuals | fig\_logic | 0.63 | 0.70 | . | . |
| Covariance of Residuals | mir | 0.32 | 0.38 | . | . |
| Covariance of Residuals | prose\_im | 0.20 | 0.25 | 0.20 | 0.26 |
| Covariance of Residuals | symbol | 0.50 | 0.49 | 0.54 | . |

# male

Gender = *male*; Model type: *aehplus*; Process (a) = *pef*; Process (b): *block*, *digit\_b*, *digit\_f*, *fig\_logic*, *mir*, *prose\_im*, *symbol*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| process | label | block | digit\_b | digit\_f | prose\_im | symbol | mean(sd) |
| a | Level | 464.58 (23.32) <.01 | 466.55 (23.55) <.01 | 469.38 (23.60) <.01 | 465.57 (23.57) <.01 | 463.73 (23.41) <.01 | 465.96(2.18) |
| a | Slope | -3.65 (3.42) .29 | -3.18 (3.63) .38 | -4.53 (3.48) .19 | -3.29 (3.71) .38 | -3.27 (3.62) .37 | -3.58(0.56) |
| a | Level \* age | -12.12 (4.20) <.01 | -11.58 (4.09) <.01 | -11.48 (4.15) .01 | -12.13 (4.14) <.01 | -11.96 (4.16) <.01 | -11.85(0.31) |
| a | Level \* education | 6.95 (2.11) <.01 | 6.77 (2.12) <.01 | 6.98 (2.10) <.01 | 7.03 (2.10) <.01 | 6.98 (2.11) <.01 | 6.94(0.10) |
| a | Level \* height | 2.11 (1.48) .15 | 2.04 (1.48) .17 | 2.11 (1.50) .16 | 2.12 (1.47) .15 | 2.10 (1.47) .15 | 2.09(0.03) |
| a | Level \* smoking | -32.02 (21.78) .14 | -33.68 (21.90) .12 | -36.65 (21.80) .09 | -33.30 (21.76) .13 | -31.07 (21.41) .15 | -33.35(2.12) |
| a | Level \* cardio | -21.12 (19.57) .28 | -22.01 (19.62) .26 | -22.91 (19.64) .24 | -21.06 (19.60) .28 | -20.79 (19.62) .29 | -21.58(0.87) |
| a | Level \* diabetes | 43.86 (26.90) .10 | 41.15 (26.42) .12 | 43.66 (27.32) .11 | 39.26 (28.12) .16 | 44.25 (27.02) .10 | 42.44(2.15) |
| a | Slope \* age | 0.14 (0.96) .88 | 0.02 (0.95) .98 | 0.18 (0.96) .85 | 0.14 (0.95) .88 | 0.26 (0.94) .78 | 0.15(0.09) |
| a | Slope \* education | -0.36 (0.59) .54 | -0.48 (0.58) .41 | -0.44 (0.56) .44 | -0.40 (0.58) .48 | -0.43 (0.54) .43 | -0.42(0.04) |
| a | Slope \* height | 0.23 (0.26) .38 | 0.26 (0.26) .33 | 0.28 (0.26) .29 | 0.22 (0.26) .39 | 0.27 (0.26) .29 | 0.25(0.03) |
| a | Slope \* smoking | -4.95 (3.41) .15 | -5.16 (3.57) .15 | -5.22 (3.35) .12 | -5.28 (3.40) .12 | -5.73 (3.34) .09 | -5.27(0.29) |
| a | Slope \* cardio | -2.46 (3.04) .42 | -2.87 (3.18) .37 | -1.79 (2.97) .55 | -2.61 (3.15) .41 | -2.60 (2.97) .38 | -2.47(0.41) |
| a | Slope \* diabetes | -6.08 (4.09) .14 | -4.40 (4.19) .29 | -5.16 (3.79) .17 | -5.43 (4.28) .20 | -6.18 (3.92) .12 | -5.45(0.73) |
| b | Level | 16.78 (1.48) <.01 | 3.97 (0.26) <.01 | 6.02 (0.25) <.01 | 11.03 (0.76) <.01 | 31.50 (2.41) <.01 | --- |
| b | Slope | -0.42 (0.17) .01 | -0.06 (0.09) .47 | -0.10 (0.06) .08 | 0.13 (0.16) .40 | -0.54 (0.33) .10 | --- |
| b | Level \* age | -0.49 (0.22) .03 | -0.08 (0.04) .08 | -0.02 (0.03) .41 | -0.27 (0.12) .02 | -0.67 (0.37) .07 | --- |
| b | Level \* education | 0.62 (0.19) <.01 | 0.12 (0.03) <.01 | 0.07 (0.02) .01 | 0.42 (0.09) <.01 | 1.71 (0.24) <.01 | --- |
| b | Level \* height | 0.15 (0.09) .08 | 0.00 (0.02) .90 | 0.01 (0.01) .42 | 0.01 (0.06) .91 | 0.25 (0.12) .04 | --- |
| b | Level \* smoking | -3.60 (1.44) .01 | -0.19 (0.28) .49 | -0.47 (0.23) .04 | -0.82 (0.80) .30 | -5.97 (2.28) .01 | --- |
| b | Level \* cardio | -0.78 (1.11) .49 | -0.57 (0.24) .02 | -0.01 (0.19) .94 | -0.48 (0.69) .49 | -1.66 (1.77) .35 | --- |
| b | Level \* diabetes | -2.36 (1.29) .07 | -0.30 (0.43) .49 | -0.04 (0.27) .89 | 0.87 (0.93) .35 | -1.92 (2.27) .40 | --- |
| b | Slope \* age | 0.04 (0.03) .19 | 0.00 (0.01) .91 | -0.01 (0.01) .08 | -0.00 (0.05) .91 | 0.04 (0.07) .54 | --- |
| b | Slope \* education | 0.02 (0.04) .61 | -0.00 (0.01) .72 | 0.01 (0.01) .21 | -0.01 (0.01) .63 | 0.02 (0.05) .73 | --- |
| b | Slope \* height | -0.00 (0.01) .77 | 0.01 (0.00) .10 | -0.00 (0.00) .18 | 0.01 (0.01) .20 | -0.02 (0.02) .29 | --- |
| b | Slope \* smoking | 0.02 (0.15) .91 | -0.04 (0.08) .64 | 0.06 (0.05) .21 | -0.15 (0.12) .23 | 0.10 (0.31) .74 | --- |
| b | Slope \* cardio | -0.15 (0.16) .35 | 0.09 (0.06) .11 | -0.02 (0.04) .52 | -0.16 (0.11) .13 | -0.14 (0.26) .59 | --- |
| b | Slope \* diabetes | 0.33 (0.29) .26 | -0.03 (0.12) .78 | 0.00 (0.05) .96 | -0.20 (0.18) .26 | -0.20 (0.49) .68 | --- |
| a | Var (Level) | 8396.19 (1398.80) <.01 | 8379.63 (1437.60) <.01 | 8305.93 (1369.68) <.01 | 8318.76 (1411.15) <.01 | 8372.76 (1412.60) <.01 | 8354.65(39.81) |
| a | Var (Slope) | 37.14 (18.63) .05 | 38.96 (23.14) .09 | 27.92 (11.78) .02 | 35.05 (21.25) .10 | 39.41 (16.27) .01 | 35.70(4.68) |
| a | Var (Residual) | 3322.17 (419.52) <.01 | 3327.42 (416.10) <.01 | 3391.62 (399.44) <.01 | 3350.55 (427.87) <.01 | 3295.66 (403.32) <.01 | 3337.48(36.01) |
| a | Covar (Level, Slope) | -296.60 (139.36) .03 | -300.33 (163.59) .07 | -274.76 (121.89) .02 | -285.99 (152.20) .06 | -281.62 (135.62) .04 | -287.86(10.56) |
| b | Var (Level) | 32.27 (4.94) <.01 | 1.07 (0.26) <.01 | 0.81 (0.17) <.01 | 10.17 (1.71) <.01 | 73.70 (10.62) <.01 | --- |
| b | Var (Slope) | 0.05 (0.05) .27 | 0.02 (0.01) .17 | 0.01 (0.00) <.01 | 0.01 (0.01) .22 | 0.47 (0.22) .03 | --- |
| b | Var (Residual) | 9.21 (1.01) <.01 | 0.95 (0.14) <.01 | 0.52 (0.07) <.01 | 4.11 (0.63) <.01 | 17.14 (2.12) <.01 | --- |
| b | Covar (Level, Slope) | -0.06 (0.41) .88 | -0.09 (0.05) .06 | -0.07 (0.02) <.01 | -0.16 (0.16) .31 | -3.00 (1.07) <.01 | --- |
| ab | Covar (Levels) | 158.68 (59.03) .01 | 28.91 (13.02) .03 | -7.21 (10.70) .50 | 63.89 (39.48) .11 | 244.57 (90.32) .01 | --- |
| ab | Covar (Slopes) | 1.05 (0.81) .19 | 0.33 (0.37) .38 | 0.36 (0.19) .05 | -0.17 (0.42) .68 | 3.13 (1.56) .04 | --- |
| ab | Covar (Residuals) | 19.93 (11.14) .07 | -5.13 (4.88) .29 | 0.45 (2.34) .85 | 11.87 (14.47) .41 | -9.63 (18.28) .60 | --- |
|  | Correlation of Levels | 0.30 | 0.305 | -0.088 | 0.22 | 0.311 | 0.21(0.17) |
|  | Correlation of Slopes | 0.75 | 0.363 | 0.620 | -0.25 | 0.727 | 0.44(0.42) |
|  | Correlation of Residuals | 0.11 | -0.091 | 0.011 | 0.10 | -0.041 | 0.02(0.09) |
|  | N | 136 | 138 | 138 | 136 | 133 | 136.20(2.05) |
|  | occasions | 5 | 5 | 5 | 5 | 5 | 5.00(0.00) |
|  | parameters | 41 | 41 | 41 | 41 | 41 | 41.00(0.00) |
|  | LL | -3,179 | -2,724 | -2,614 | -2,871 | -3,202 | -2,918(265) |
|  | AIC | 6,440 | 5,529 | 5,310 | 5,823 | 6,486 | 5,918(530) |
|  | BIC | 6,559 | 5,649 | 5,430 | 5,943 | 6,604 | 6,037(530) |

## block

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus | full |
| a | Level | 430.61 (15.04) <.01 | 434.69 (16.27) <.01 | 464.58 (23.32) <.01 | 453.26 (45.59) <.01 |
| a | Slope | -10.48 (2.34) <.01 | -10.22 (2.26) <.01 | -3.65 (3.42) .29 | -1.07 (7.43) .88 |
| a | Level \* age | -12.89 (4.19) <.01 | -12.51 (4.23) <.01 | -12.12 (4.20) <.01 | -11.86 (4.08) <.01 |
| a | Level \* education | --- | 6.39 (1.95) <.01 | 6.95 (2.11) <.01 | 6.10 (2.94) .04 |
| a | Level \* height | --- | 1.86 (1.44) .20 | 2.11 (1.48) .15 | --- |
| a | Level \* smoking | --- | --- | -32.02 (21.78) .14 | -12.65 (9.20) .17 |
| a | Level \* cardio | --- | --- | -21.12 (19.57) .28 | --- |
| a | Level \* diabetes | --- | --- | 43.86 (26.90) .10 | --- |
| a | Slope \* age | 0.74 (0.89) .40 | 0.76 (0.90) .40 | 0.14 (0.96) .88 | 0.31 (0.95) .74 |
| a | Slope \* education | --- | -0.43 (0.60) .48 | -0.36 (0.59) .54 | -0.25 (1.30) .85 |
| a | Slope \* height | --- | 0.17 (0.24) .47 | 0.23 (0.26) .38 | --- |
| a | Slope \* smoking | --- | --- | -4.95 (3.41) .15 | -1.20 (1.56) .44 |
| a | Slope \* cardio | --- | --- | -2.46 (3.04) .42 | --- |
| a | Slope \* diabetes | --- | --- | -6.08 (4.09) .14 | --- |
| b | Level | 13.25 (0.88) <.01 | 13.57 (0.90) <.01 | 16.78 (1.48) <.01 | 16.09 (2.63) <.01 |
| b | Slope | -0.47 (0.10) <.01 | -0.48 (0.11) <.01 | -0.42 (0.17) .01 | -0.23 (0.29) .42 |
| b | Level \* age | -0.53 (0.22) .02 | -0.49 (0.24) .04 | -0.49 (0.22) .03 | -0.46 (0.21) .03 |
| b | Level \* education | --- | 0.56 (0.21) .01 | 0.62 (0.19) <.01 | 0.65 (0.35) .06 |
| b | Level \* height | --- | 0.15 (0.09) .10 | 0.15 (0.09) .08 | --- |
| b | Level \* smoking | --- | --- | -3.60 (1.44) .01 | -1.58 (0.61) .01 |
| b | Level \* cardio | --- | --- | -0.78 (1.11) .49 | --- |
| b | Level \* diabetes | --- | --- | -2.36 (1.29) .07 | --- |
| b | Slope \* age | 0.04 (0.03) .17 | 0.06 (0.03) .09 | 0.04 (0.03) .19 | 0.06 (0.03) .05 |
| b | Slope \* education | --- | 0.03 (0.04) .52 | 0.02 (0.04) .61 | -0.08 (0.07) .22 |
| b | Slope \* height | --- | -0.01 (0.01) .60 | -0.00 (0.01) .77 | --- |
| b | Slope \* smoking | --- | --- | 0.02 (0.15) .91 | 0.02 (0.07) .74 |
| b | Slope \* cardio | --- | --- | -0.15 (0.16) .35 | --- |
| b | Slope \* diabetes | --- | --- | 0.33 (0.29) .26 | --- |
| a | Var (Level) | 9797.10 (1518.91) <.01 | 8792.77 (1435.27) <.01 | 8396.19 (1398.80) <.01 | 9168.60 (1431.36) <.01 |
| a | Var (Slope) | 39.26 (21.76) .07 | 39.02 (21.70) .07 | 37.14 (18.63) .05 | 33.59 (20.21) .10 |
| a | Var (Residual) | 3395.41 (423.66) <.01 | 3381.56 (497.26) <.01 | 3322.17 (419.52) <.01 | 3376.31 (420.93) <.01 |
| a | Covar (Level, Slope) | -293.48 (164.06) .07 | -263.62 (141.14) .06 | -296.60 (139.36) .03 | -271.20 (149.72) .07 |
| b | Var (Level) | 44.12 (5.63) <.01 | 35.81 (5.58) <.01 | 32.27 (4.94) <.01 | 37.39 (4.81) <.01 |
| b | Var (Slope) | 0.06 (0.07) .37 | 0.04 (0.03) .17 | 0.05 (0.05) .27 | 0.05 (0.04) .23 |
| b | Var (Residual) | 8.97 (1.02) <.01 | 9.29 (1.00) <.01 | 9.21 (1.01) <.01 | 8.85 (0.96) <.01 |
| b | Covar (Level, Slope) | 0.06 (0.41) .89 | -0.03 (0.38) .94 | -0.06 (0.41) .88 | 0.13 (0.42) .76 |
| ab | Covar (Levels) | 281.76 (75.41) <.01 | 186.56 (65.28) <.01 | 158.68 (59.03) .01 | 220.61 (70.29) <.01 |
| ab | Covar (Slopes) | 1.05 (0.87) .23 | 1.12 (0.74) .13 | 1.05 (0.81) .19 | 0.65 (0.72) .37 |
| ab | Covar (Residuals) | 15.41 (10.86) .16 | 17.25 (12.22) .16 | 19.93 (11.14) .07 | 15.78 (10.39) .13 |
|  | Correlation of Levels | 0.429 | 0.332 | 0.30 | 0.377 |
|  | Correlation of Slopes | 0.664 | 0.848 | 0.75 | 0.521 |
|  | Correlation of Residuals | 0.088 | 0.097 | 0.11 | 0.091 |
|  | N | 151 | 136 | 136 | 151 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | NA | 41 | 37 |
|  | LL | -3,352 | -3,191 | -3,179 | -3,336 |
|  | AIC | 6,746 | 6,441 | 6,440 | 6,745 |
|  | BIC | 6,809 | 6,525 | 6,559 | 6,857 |

## digit\_b

Gender = *male*; Process (a) = *pef*; Process (b) = *digit\_b*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 432.05 (14.94) <.01 | 435.16 (16.32) <.01 | 466.55 (23.55) <.01 |
| a | Slope | -10.44 (2.37) <.01 | -10.10 (2.30) <.01 | -3.18 (3.63) .38 |
| a | Level \* age | -12.44 (4.11) <.01 | -12.08 (4.20) <.01 | -11.58 (4.09) <.01 |
| a | Level \* education | --- | 6.22 (1.96) <.01 | 6.77 (2.12) <.01 |
| a | Level \* height | --- | 1.85 (1.42) .19 | 2.04 (1.48) .17 |
| a | Level \* smoking | --- | --- | -33.68 (21.90) .12 |
| a | Level \* cardio | --- | --- | -22.01 (19.62) .26 |
| a | Level \* diabetes | --- | --- | 41.15 (26.42) .12 |
| a | Slope \* age | 0.72 (0.87) .41 | 0.74 (0.87) .40 | 0.02 (0.95) .98 |
| a | Slope \* education | --- | -0.47 (0.62) .45 | -0.48 (0.58) .41 |
| a | Slope \* height | --- | 0.16 (0.23) .50 | 0.26 (0.26) .33 |
| a | Slope \* smoking | --- | --- | -5.16 (3.57) .15 |
| a | Slope \* cardio | --- | --- | -2.87 (3.18) .37 |
| a | Slope \* diabetes | --- | --- | -4.40 (4.19) .29 |
| b | Level | 3.52 (0.17) <.01 | 3.52 (0.18) <.01 | 3.97 (0.26) <.01 |
| b | Slope | -0.05 (0.04) .23 | -0.05 (0.04) .25 | -0.06 (0.09) .47 |
| b | Level \* age | -0.08 (0.04) .07 | -0.07 (0.04) .11 | -0.08 (0.04) .08 |
| b | Level \* education | --- | 0.13 (0.03) <.01 | 0.12 (0.03) <.01 |
| b | Level \* height | --- | 0.00 (0.02) .91 | 0.00 (0.02) .90 |
| b | Level \* smoking | --- | --- | -0.19 (0.28) .49 |
| b | Level \* cardio | --- | --- | -0.57 (0.24) .02 |
| b | Level \* diabetes | --- | --- | -0.30 (0.43) .49 |
| b | Slope \* age | -0.00 (0.01) .91 | 0.00 (0.01) .92 | 0.00 (0.01) .91 |
| b | Slope \* education | --- | -0.01 (0.01) .42 | -0.00 (0.01) .72 |
| b | Slope \* height | --- | 0.01 (0.00) .09 | 0.01 (0.00) .10 |
| b | Slope \* smoking | --- | --- | -0.04 (0.08) .64 |
| b | Slope \* cardio | --- | --- | 0.09 (0.06) .11 |
| b | Slope \* diabetes | --- | --- | -0.03 (0.12) .78 |
| a | Var (Level) | 9680.47 (1536.90) <.01 | 8710.34 (1477.92) <.01 | 8379.63 (1437.60) <.01 |
| a | Var (Slope) | 31.08 (21.34) .14 | 31.66 (23.97) .19 | 38.96 (23.14) .09 |
| a | Var (Residual) | 3447.64 (429.09) <.01 | 3428.09 (517.02) <.01 | 3327.42 (416.10) <.01 |
| a | Covar (Level, Slope) | -261.82 (166.20) .12 | -229.50 (153.73) .14 | -300.33 (163.59) .07 |
| b | Var (Level) | 1.57 (0.30) <.01 | 1.16 (0.29) <.01 | 1.07 (0.26) <.01 |
| b | Var (Slope) | 0.02 (0.02) .11 | 0.02 (0.02) .12 | 0.02 (0.01) .17 |
| b | Var (Residual) | 0.97 (0.13) <.01 | 0.95 (0.13) <.01 | 0.95 (0.14) <.01 |
| b | Covar (Level, Slope) | -0.13 (0.06) .03 | -0.10 (0.06) .06 | -0.09 (0.05) .06 |
| ab | Covar (Levels) | 48.95 (16.50) <.01 | 33.56 (13.51) .01 | 28.91 (13.02) .03 |
| ab | Covar (Slopes) | 0.36 (0.43) .40 | 0.25 (0.43) .56 | 0.33 (0.37) .38 |
| ab | Covar (Residuals) | -5.22 (5.00) .30 | -5.05 (5.47) .36 | -5.13 (4.88) .29 |
|  | Correlation of Levels | 0.40 | 0.333 | 0.305 |
|  | Correlation of Slopes | 0.41 | 0.285 | 0.363 |
|  | Correlation of Residuals | -0.09 | -0.089 | -0.091 |
|  | N | 158 | 138 | 138 |
|  | occasions | 5 | 5 | 5 |
|  | parameters | NA | NA | 41 |
|  | LL | -2,881 | -2,735 | -2,724 |
|  | AIC | 5,805 | 5,528 | 5,529 |
|  | BIC | 5,869 | 5,613 | 5,649 |

## digit\_f

Gender = *male*; Process (a) = *pef*; Process (b) = *digit\_f*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 434.38 (15.05) <.01 | 435.38 (16.32) <.01 | 469.38 (23.60) <.01 |
| a | Slope | -10.32 (2.39) <.01 | -10.25 (2.31) <.01 | -4.53 (3.48) .19 |
| a | Level \* age | -12.51 (4.25) <.01 | -11.94 (4.23) <.01 | -11.48 (4.15) .01 |
| a | Level \* education | --- | 6.30 (1.94) <.01 | 6.98 (2.10) <.01 |
| a | Level \* height | --- | 1.98 (1.45) .17 | 2.11 (1.50) .16 |
| a | Level \* smoking | --- | --- | -36.65 (21.80) .09 |
| a | Level \* cardio | --- | --- | -22.91 (19.64) .24 |
| a | Level \* diabetes | --- | --- | 43.66 (27.32) .11 |
| a | Slope \* age | 0.53 (0.92) .57 | 0.72 (0.92) .44 | 0.18 (0.96) .85 |
| a | Slope \* education | --- | -0.44 (0.60) .46 | -0.44 (0.56) .44 |
| a | Slope \* height | --- | 0.14 (0.24) .56 | 0.28 (0.26) .29 |
| a | Slope \* smoking | --- | --- | -5.22 (3.35) .12 |
| a | Slope \* cardio | --- | --- | -1.79 (2.97) .55 |
| a | Slope \* diabetes | --- | --- | -5.16 (3.79) .17 |
| b | Level | 5.70 (0.13) <.01 | 5.67 (0.15) <.01 | 6.02 (0.25) <.01 |
| b | Slope | -0.04 (0.03) .12 | -0.06 (0.03) .02 | -0.10 (0.06) .08 |
| b | Level \* age | -0.05 (0.03) .07 | -0.02 (0.03) .51 | -0.02 (0.03) .41 |
| b | Level \* education | --- | 0.06 (0.02) .02 | 0.07 (0.02) .01 |
| b | Level \* height | --- | 0.01 (0.02) .52 | 0.01 (0.01) .42 |
| b | Level \* smoking | --- | --- | -0.47 (0.23) .04 |
| b | Level \* cardio | --- | --- | -0.01 (0.19) .94 |
| b | Level \* diabetes | --- | --- | -0.04 (0.27) .89 |
| b | Slope \* age | -0.02 (0.01) .04 | -0.01 (0.01) .10 | -0.01 (0.01) .08 |
| b | Slope \* education | --- | 0.01 (0.01) .15 | 0.01 (0.01) .21 |
| b | Slope \* height | --- | -0.00 (0.00) .19 | -0.00 (0.00) .18 |
| b | Slope \* smoking | --- | --- | 0.06 (0.05) .21 |
| b | Slope \* cardio | --- | --- | -0.02 (0.04) .52 |
| b | Slope \* diabetes | --- | --- | 0.00 (0.05) .96 |
| a | Var (Level) | 9626.92 (1512.82) <.01 | 8731.66 (1451.52) <.01 | 8305.93 (1369.68) <.01 |
| a | Var (Slope) | 32.00 (19.11) .09 | 31.81 (20.21) .12 | 27.92 (11.78) .02 |
| a | Var (Residual) | 3436.36 (419.93) <.01 | 3423.62 (495.57) <.01 | 3391.62 (399.44) <.01 |
| a | Covar (Level, Slope) | -258.25 (157.64) .10 | -241.54 (144.12) .09 | -274.76 (121.89) .02 |
| b | Var (Level) | 0.91 (0.17) <.01 | 0.86 (0.17) <.01 | 0.81 (0.17) <.01 |
| b | Var (Slope) | 0.01 (0.01) .04 | 0.01 (0.01) .02 | 0.01 (0.00) <.01 |
| b | Var (Residual) | 0.57 (0.08) <.01 | 0.52 (0.08) <.01 | 0.52 (0.07) <.01 |
| b | Covar (Level, Slope) | -0.07 (0.03) .01 | -0.08 (0.03) <.01 | -0.07 (0.02) <.01 |
| ab | Covar (Levels) | 2.40 (12.23) .84 | -3.87 (12.19) .75 | -7.21 (10.70) .50 |
| ab | Covar (Slopes) | 0.20 (0.28) .48 | 0.22 (0.28) .43 | 0.36 (0.19) .05 |
| ab | Covar (Residuals) | 0.56 (2.75) .84 | 0.48 (2.81) .86 | 0.45 (2.34) .85 |
|  | Correlation of Levels | 0.026 | -0.045 | -0.088 |
|  | Correlation of Slopes | 0.294 | 0.344 | 0.620 |
|  | Correlation of Residuals | 0.013 | 0.011 | 0.011 |
|  | N | 158 | 138 | 138 |
|  | occasions | 5 | 5 | 5 |
|  | parameters | NA | NA | 41 |
|  | LL | -2,769 | -2,624 | -2,614 |
|  | AIC | 5,579 | 5,306 | 5,310 |
|  | BIC | 5,644 | 5,391 | 5,430 |

## fig\_logic

Gender = *male*; Process (a) = *pef*; Process (b) = *fig\_logic*

|  |  |  |  |
| --- | --- | --- | --- |
| process | label | a | aeh |
| a | Level | 429.05 (15.26) <.01 | 433.73 (16.30) <.01 |
| a | Slope | -10.01 (2.39) <.01 | -9.88 (2.32) <.01 |
| a | Level \* age | -11.97 (4.22) <.01 | -11.90 (4.21) <.01 |
| a | Level \* education | --- | 6.56 (1.94) <.01 |
| a | Level \* height | --- | 1.82 (1.44) .20 |
| a | Level \* smoking | --- | --- |
| a | Level \* cardio | --- | --- |
| a | Level \* diabetes | --- | --- |
| a | Slope \* age | 0.62 (0.89) .48 | 0.67 (0.89) .45 |
| a | Slope \* education | --- | -0.52 (0.62) .40 |
| a | Slope \* height | --- | 0.16 (0.24) .49 |
| a | Slope \* smoking | --- | --- |
| a | Slope \* cardio | --- | --- |
| a | Slope \* diabetes | --- | --- |
| b | Level | 15.80 (0.51) <.01 | 16.03 (0.48) <.01 |
| b | Slope | -0.06 (0.11) .58 | -0.04 (0.11) .72 |
| b | Level \* age | -0.17 (0.12) .16 | -0.17 (0.12) .17 |
| b | Level \* education | --- | 0.31 (0.10) <.01 |
| b | Level \* height | --- | 0.04 (0.05) .42 |
| b | Level \* smoking | --- | --- |
| b | Level \* cardio | --- | --- |
| b | Level \* diabetes | --- | --- |
| b | Slope \* age | 0.02 (0.03) .55 | 0.02 (0.03) .46 |
| b | Slope \* education | --- | -0.02 (0.02) .33 |
| b | Slope \* height | --- | 0.01 (0.01) .44 |
| b | Slope \* smoking | --- | --- |
| b | Slope \* cardio | --- | --- |
| b | Slope \* diabetes | --- | --- |
| a | Var (Level) | 9875.76 (1556.03) <.01 | 8796.11 (1448.56) <.01 |
| a | Var (Slope) | 42.14 (22.72) .06 | 39.89 (22.41) .07 |
| a | Var (Residual) | 3389.61 (416.49) <.01 | 3375.96 (490.10) <.01 |
| a | Covar (Level, Slope) | -306.86 (172.70) .08 | -260.81 (147.76) .08 |
| b | Var (Level) | 10.50 (2.40) <.01 | 7.22 (1.59) <.01 |
| b | Var (Slope) | 0.06 (0.05) .21 | 0.04 (0.03) .12 |
| b | Var (Residual) | 8.19 (0.88) <.01 | 8.14 (0.92) <.01 |
| b | Covar (Level, Slope) | -0.40 (0.34) .25 | -0.22 (0.22) .31 |
| ab | Covar (Levels) | 134.90 (48.41) <.01 | 83.23 (35.38) .02 |
| ab | Covar (Slopes) | 1.15 (0.83) .16 | 1.12 (0.69) .10 |
| ab | Covar (Residuals) | -0.32 (13.41) .98 | -0.66 (15.06) .96 |
|  | Correlation of Levels | 0.419 | 0.330 |
|  | Correlation of Slopes | 0.717 | 0.854 |
|  | Correlation of Residuals | -0.002 | -0.004 |
|  | N | 146 | 133 |
|  | occasions | 5 | 5 |
|  | parameters | NA | NA |
|  | LL | -3,134 | -3,014 |
|  | AIC | 6,310 | 6,086 |
|  | BIC | 6,373 | 6,170 |

## mir

Gender = *male*; Process (a) = *pef*; Process (b) = *mir*

|  |  |  |  |
| --- | --- | --- | --- |
| process | label | a | aeh |
| a | Level | 432.47 (15.11) <.01 | 433.96 (16.18) <.01 |
| a | Slope | -9.93 (2.32) <.01 | -9.44 (2.29) <.01 |
| a | Level \* age | -13.81 (4.17) <.01 | -12.72 (4.27) <.01 |
| a | Level \* education | --- | 7.27 (1.99) <.01 |
| a | Level \* height | --- | 2.08 (1.44) .15 |
| a | Level \* smoking | --- | --- |
| a | Level \* cardio | --- | --- |
| a | Level \* diabetes | --- | --- |
| a | Slope \* age | 0.78 (0.84) .35 | 0.73 (0.83) .38 |
| a | Slope \* education | --- | -0.62 (0.57) .28 |
| a | Slope \* height | --- | 0.20 (0.24) .41 |
| a | Slope \* smoking | --- | --- |
| a | Slope \* cardio | --- | --- |
| a | Slope \* diabetes | --- | --- |
| b | Level | 7.02 (0.24) <.01 | 6.97 (0.27) <.01 |
| b | Slope | -0.09 (0.07) .19 | -0.06 (0.08) .45 |
| b | Level \* age | -0.27 (0.07) <.01 | -0.22 (0.07) <.01 |
| b | Level \* education | --- | 0.08 (0.05) .08 |
| b | Level \* height | --- | 0.00 (0.03) .99 |
| b | Level \* smoking | --- | --- |
| b | Level \* cardio | --- | --- |
| b | Level \* diabetes | --- | --- |
| b | Slope \* age | -0.01 (0.02) .48 | -0.02 (0.02) .27 |
| b | Slope \* education | --- | -0.00 (0.02) .80 |
| b | Slope \* height | --- | 0.00 (0.01) .98 |
| b | Slope \* smoking | --- | --- |
| b | Slope \* cardio | --- | --- |
| b | Slope \* diabetes | --- | --- |
| a | Var (Level) | 10138.97 (1598.00) <.01 | 9019.27 (1464.11) <.01 |
| a | Var (Slope) | 40.23 (18.13) .03 | 45.55 (18.97) .02 |
| a | Var (Residual) | 3405.19 (404.24) <.01 | 3339.70 (464.65) <.01 |
| a | Covar (Level, Slope) | -323.23 (158.97) .04 | -296.49 (142.18) .04 |
| b | Var (Level) | 2.50 (0.45) <.01 | 2.02 (0.38) <.01 |
| b | Var (Slope) | 0.08 (0.02) <.01 | 0.07 (0.02) <.01 |
| b | Var (Residual) | 2.09 (0.23) <.01 | 1.98 (0.24) <.01 |
| b | Covar (Level, Slope) | 0.02 (0.08) .85 | 0.03 (0.07) .61 |
| ab | Covar (Levels) | 96.97 (24.90) <.01 | 82.08 (20.97) <.01 |
| ab | Covar (Slopes) | 0.61 (0.50) .22 | 0.80 (0.45) .08 |
| ab | Covar (Residuals) | -1.70 (7.22) .81 | -1.64 (7.79) .83 |
|  | Correlation of Levels | 0.61 | 0.61 |
|  | Correlation of Slopes | 0.34 | 0.45 |
|  | Correlation of Residuals | -0.02 | -0.02 |
|  | N | 153 | 137 |
|  | occasions | 5 | 5 |
|  | parameters | NA | NA |
|  | LL | -3,006 | -2,869 |
|  | AIC | 6,053 | 5,796 |
|  | BIC | 6,117 | 5,880 |

## prose\_im

Gender = *male*; Process (a) = *pef*; Process (b) = *prose\_im*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus | full |
| a | Level | 432.49 (15.00) <.01 | 434.45 (16.32) <.01 | 465.57 (23.57) <.01 | 418.74 (66.97) <.01 |
| a | Slope | -10.09 (2.44) <.01 | -9.85 (2.38) <.01 | -3.29 (3.71) .38 | 8.31 (6.53) .20 |
| a | Level \* age | -13.54 (4.21) <.01 | -12.54 (4.17) <.01 | -12.13 (4.14) <.01 | -1.45 (16.30) .93 |
| a | Level \* education | --- | 6.64 (1.95) <.01 | 7.03 (2.10) <.01 | 12.65 (7.48) .09 |
| a | Level \* height | --- | 1.92 (1.41) .17 | 2.12 (1.47) .15 | --- |
| a | Level \* smoking | --- | --- | -33.30 (21.76) .13 | --- |
| a | Level \* cardio | --- | --- | -21.06 (19.60) .28 | --- |
| a | Level \* diabetes | --- | --- | 39.26 (28.12) .16 | --- |
| a | Slope \* age | 0.72 (0.89) .42 | 0.73 (0.89) .42 | 0.14 (0.95) .88 | -4.52 (1.73) .01 |
| a | Slope \* education | --- | -0.52 (0.62) .40 | -0.40 (0.58) .48 | -10.55 (1.32) <.01 |
| a | Slope \* height | --- | 0.18 (0.23) .44 | 0.22 (0.26) .39 | --- |
| a | Slope \* smoking | --- | --- | -5.28 (3.40) .12 | --- |
| a | Slope \* cardio | --- | --- | -2.61 (3.15) .41 | --- |
| a | Slope \* diabetes | --- | --- | -5.43 (4.28) .20 | --- |
| b | Level | 10.58 (0.47) <.01 | 10.30 (0.56) <.01 | 11.03 (0.76) <.01 | 12.61 (1.78) <.01 |
| b | Slope | -0.17 (0.08) .04 | -0.11 (0.07) .12 | 0.13 (0.16) .40 | 0.11 (0.31) .71 |
| b | Level \* age | -0.35 (0.11) <.01 | -0.27 (0.14) .05 | -0.27 (0.12) .02 | 0.09 (0.59) .88 |
| b | Level \* education | --- | 0.42 (0.09) <.01 | 0.42 (0.09) <.01 | 0.61 (0.28) .03 |
| b | Level \* height | --- | 0.00 (0.06) .99 | 0.01 (0.06) .91 | --- |
| b | Level \* smoking | --- | --- | -0.82 (0.80) .30 | --- |
| b | Level \* cardio | --- | --- | -0.48 (0.69) .49 | --- |
| b | Level \* diabetes | --- | --- | 0.87 (0.93) .35 | --- |
| b | Slope \* age | 0.00 (0.04) .92 | 0.00 (0.04) .93 | -0.00 (0.05) .91 | -0.29 (0.13) .03 |
| b | Slope \* education | --- | -0.01 (0.01) .56 | -0.01 (0.01) .63 | 0.01 (0.06) .90 |
| b | Slope \* height | --- | 0.01 (0.01) .10 | 0.01 (0.01) .20 | --- |
| b | Slope \* smoking | --- | --- | -0.15 (0.12) .23 | --- |
| b | Slope \* cardio | --- | --- | -0.16 (0.11) .13 | --- |
| b | Slope \* diabetes | --- | --- | -0.20 (0.18) .26 | --- |
| a | Var (Level) | 9819.58 (1536.75) <.01 | 8732.34 (1457.46) <.01 | 8318.76 (1411.15) <.01 | 9315.91 (1306.55) <.01 |
| a | Var (Slope) | 44.07 (22.77) .05 | 38.44 (25.42) .13 | 35.05 (21.25) .10 | 20.72 (2.65) <.01 |
| a | Var (Residual) | 3381.82 (420.33) <.01 | 3397.47 (511.65) <.01 | 3350.55 (427.87) <.01 | 3335.57 (375.78) <.01 |
| a | Covar (Level, Slope) | -308.44 (171.34) .07 | -251.29 (157.98) .11 | -285.99 (152.20) .06 | -343.22 (54.77) <.01 |
| b | Var (Level) | 13.17 (1.59) <.01 | 10.09 (1.75) <.01 | 10.17 (1.71) <.01 | 9.88 (1.31) <.01 |
| b | Var (Slope) | 0.02 (0.02) .34 | 0.01 (0.01) .38 | 0.01 (0.01) .22 | 0.02 (0.00) <.01 |
| b | Var (Residual) | 4.27 (0.60) <.01 | 4.16 (0.62) <.01 | 4.11 (0.63) <.01 | 4.04 (0.53) <.01 |
| b | Covar (Level, Slope) | 0.10 (0.22) .66 | 0.07 (0.16) .65 | -0.16 (0.16) .31 | 0.16 (0.05) <.01 |
| ab | Covar (Levels) | 116.89 (46.58) .01 | 72.97 (41.26) .08 | 63.89 (39.48) .11 | 80.62 (38.99) .04 |
| ab | Covar (Slopes) | -0.59 (0.62) .34 | -0.31 (0.44) .49 | -0.17 (0.42) .68 | -0.43 (0.07) <.01 |
| ab | Covar (Residuals) | 15.32 (14.56) .29 | 14.79 (18.05) .41 | 11.87 (14.47) .41 | 16.02 (13.23) .23 |
|  | Correlation of Levels | 0.32 | 0.25 | 0.22 | 0.27 |
|  | Correlation of Slopes | -0.61 | -0.55 | -0.25 | -0.75 |
|  | Correlation of Residuals | 0.13 | 0.12 | 0.10 | 0.14 |
|  | N | 153 | 136 | 136 | 153 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | NA | NA | 41 | NA |
|  | LL | -3,045 | -2,881 | -2,871 | -3,009 |
|  | AIC | 6,131 | 5,821 | 5,823 | 6,107 |
|  | BIC | 6,195 | 5,905 | 5,943 | 6,244 |

## symbol

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | a | aeh | aehplus |
| a | Level | 433.61 (14.91) <.01 | 435.23 (16.24) <.01 | 463.73 (23.41) <.01 |
| a | Slope | -11.04 (2.33) <.01 | -10.77 (2.33) <.01 | -3.27 (3.62) .37 |
| a | Level \* age | -12.85 (4.17) <.01 | -12.41 (4.24) <.01 | -11.96 (4.16) <.01 |
| a | Level \* education | --- | 6.53 (1.97) <.01 | 6.98 (2.11) <.01 |
| a | Level \* height | --- | 1.91 (1.42) .18 | 2.10 (1.47) .15 |
| a | Level \* smoking | --- | --- | -31.07 (21.41) .15 |
| a | Level \* cardio | --- | --- | -20.79 (19.62) .29 |
| a | Level \* diabetes | --- | --- | 44.25 (27.02) .10 |
| a | Slope \* age | 0.93 (0.86) .28 | 1.00 (0.90) .27 | 0.26 (0.94) .78 |
| a | Slope \* education | --- | -0.55 (0.57) .34 | -0.43 (0.54) .43 |
| a | Slope \* height | --- | 0.21 (0.24) .39 | 0.27 (0.26) .29 |
| a | Slope \* smoking | --- | --- | -5.73 (3.34) .09 |
| a | Slope \* cardio | --- | --- | -2.60 (2.97) .38 |
| a | Slope \* diabetes | --- | --- | -6.18 (3.92) .12 |
| b | Level | 26.89 (1.44) <.01 | 26.09 (1.38) <.01 | 31.50 (2.41) <.01 |
| b | Slope | -0.53 (0.21) .01 | -0.56 (0.18) <.01 | -0.54 (0.33) .10 |
| b | Level \* age | -0.76 (0.36) .04 | -0.61 (0.39) .12 | -0.67 (0.37) .07 |
| b | Level \* education | --- | 1.63 (0.24) <.01 | 1.71 (0.24) <.01 |
| b | Level \* height | --- | 0.25 (0.12) .05 | 0.25 (0.12) .04 |
| b | Level \* smoking | --- | --- | -5.97 (2.28) .01 |
| b | Level \* cardio | --- | --- | -1.66 (1.77) .35 |
| b | Level \* diabetes | --- | --- | -1.92 (2.27) .40 |
| b | Slope \* age | 0.03 (0.07) .66 | 0.06 (0.06) .36 | 0.04 (0.07) .54 |
| b | Slope \* education | --- | 0.02 (0.04) .61 | 0.02 (0.05) .73 |
| b | Slope \* height | --- | -0.02 (0.02) .19 | -0.02 (0.02) .29 |
| b | Slope \* smoking | --- | --- | 0.10 (0.31) .74 |
| b | Slope \* cardio | --- | --- | -0.14 (0.26) .59 |
| b | Slope \* diabetes | --- | --- | -0.20 (0.49) .68 |
| a | Var (Level) | 9516.86 (1482.49) <.01 | 8703.65 (1420.47) <.01 | 8372.76 (1412.60) <.01 |
| a | Var (Slope) | 30.89 (16.78) .07 | 39.00 (17.42) .02 | 39.41 (16.27) .01 |
| a | Var (Residual) | 3437.19 (407.99) <.01 | 3368.38 (463.20) <.01 | 3295.66 (403.32) <.01 |
| a | Covar (Level, Slope) | -225.59 (147.16) .12 | -226.19 (131.37) .08 | -281.62 (135.62) .04 |
| b | Var (Level) | 105.77 (13.96) <.01 | 82.48 (13.06) <.01 | 73.70 (10.62) <.01 |
| b | Var (Slope) | 0.52 (0.21) .01 | 0.41 (0.17) .02 | 0.47 (0.22) .03 |
| b | Var (Residual) | 17.55 (2.02) <.01 | 17.38 (2.22) <.01 | 17.14 (2.12) <.01 |
| b | Covar (Level, Slope) | -2.71 (1.22) .03 | -2.87 (1.17) .01 | -3.00 (1.07) <.01 |
| ab | Covar (Levels) | 393.18 (112.14) <.01 | 288.44 (106.31) .01 | 244.57 (90.32) .01 |
| ab | Covar (Slopes) | 2.55 (1.61) .11 | 2.86 (1.52) .06 | 3.13 (1.56) .04 |
| ab | Covar (Residuals) | -7.14 (19.18) .71 | -12.37 (19.37) .52 | -9.63 (18.28) .60 |
|  | Correlation of Levels | 0.392 | 0.340 | 0.311 |
|  | Correlation of Slopes | 0.633 | 0.717 | 0.727 |
|  | Correlation of Residuals | -0.029 | -0.051 | -0.041 |
|  | N | 142 | 133 | 133 |
|  | occasions | 5 | 5 | 5 |
|  | parameters | NA | NA | 41 |
|  | LL | -3,344 | -3,214 | -3,202 |
|  | AIC | 6,730 | 6,485 | 6,486 |
|  | BIC | 6,792 | 6,569 | 6,604 |

## Summary

Study = *OCTO*; Gender = *male*; Process (a) = *pef*

Computed correlations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus | full |
| Correlation of Levels | block | 0.43 | 0.33 | 0.30 | 0.38 |
| Correlation of Levels | digit\_b | 0.40 | 0.33 | 0.31 | . |
| Correlation of Levels | digit\_f | 0.03 | -0.04 | -0.09 | . |
| Correlation of Levels | fig\_logic | 0.42 | 0.33 | . | . |
| Correlation of Levels | mir | 0.61 | 0.61 | . | . |
| Correlation of Levels | prose\_im | 0.32 | 0.25 | 0.22 | 0.27 |
| Correlation of Levels | symbol | 0.39 | 0.34 | 0.31 | . |
| label | process\_b | a | aeh | aehplus | full |
| Correlation of Slopes | block | 0.66 | 0.85 | 0.75 | 0.52 |
| Correlation of Slopes | digit\_b | 0.41 | 0.28 | 0.36 | . |
| Correlation of Slopes | digit\_f | 0.29 | 0.34 | 0.62 | . |
| Correlation of Slopes | fig\_logic | 0.72 | 0.85 | . | . |
| Correlation of Slopes | mir | 0.34 | 0.45 | . | . |
| Correlation of Slopes | prose\_im | -0.61 | -0.55 | -0.25 | -0.75 |
| Correlation of Slopes | symbol | 0.63 | 0.72 | 0.73 | . |
| label | process\_b | a | aeh | aehplus | full |
| Correlation of Residuals | block | 0.09 | 0.10 | 0.11 | 0.09 |
| Correlation of Residuals | digit\_b | -0.09 | -0.09 | -0.09 | . |
| Correlation of Residuals | digit\_f | 0.01 | 0.01 | 0.01 | . |
| Correlation of Residuals | fig\_logic | -0.00 | -0.00 | . | . |
| Correlation of Residuals | mir | -0.02 | -0.02 | . | . |
| Correlation of Residuals | prose\_im | 0.13 | 0.12 | 0.10 | 0.14 |
| Correlation of Residuals | symbol | -0.03 | -0.05 | -0.04 | . |

P-values for corresponding covariances:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | aeh | aehplus | full |
| Covariance of Levels | block | 0.00 | 0.00 | 0.01 | 0.00 |
| Covariance of Levels | digit\_b | 0.00 | 0.01 | 0.03 | . |
| Covariance of Levels | digit\_f | 0.84 | 0.75 | 0.50 | . |
| Covariance of Levels | fig\_logic | 0.00 | 0.02 | . | . |
| Covariance of Levels | mir | 0.00 | 0.00 | . | . |
| Covariance of Levels | prose\_im | 0.01 | 0.08 | 0.11 | 0.04 |
| Covariance of Levels | symbol | 0.00 | 0.01 | 0.01 | . |
| label | process\_b | a | aeh | aehplus | full |
| Covariance of Slopes | block | 0.23 | 0.13 | 0.19 | 0.37 |
| Covariance of Slopes | digit\_b | 0.40 | 0.56 | 0.38 | . |
| Covariance of Slopes | digit\_f | 0.48 | 0.43 | 0.05 | . |
| Covariance of Slopes | fig\_logic | 0.16 | 0.10 | . | . |
| Covariance of Slopes | mir | 0.22 | 0.08 | . | . |
| Covariance of Slopes | prose\_im | 0.34 | 0.49 | 0.68 | 0.00 |
| Covariance of Slopes | symbol | 0.11 | 0.06 | 0.04 | . |
| label | process\_b | a | aeh | aehplus | full |
| Covariance of Residuals | block | 0.16 | 0.16 | 0.07 | 0.13 |
| Covariance of Residuals | digit\_b | 0.30 | 0.36 | 0.29 | . |
| Covariance of Residuals | digit\_f | 0.84 | 0.86 | 0.85 | . |
| Covariance of Residuals | fig\_logic | 0.98 | 0.96 | . | . |
| Covariance of Residuals | mir | 0.81 | 0.83 | . | . |
| Covariance of Residuals | prose\_im | 0.29 | 0.41 | 0.41 | 0.23 |
| Covariance of Residuals | symbol | 0.71 | 0.52 | 0.60 | . |

#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