LASA : Seed report

Date: 2016-10-19

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

# Available models

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

|  |  |  |
| --- | --- | --- |
| process\_a | process\_b | n\_models |
| pef | letter | 2 |
| pef | raven | 2 |
| pef | word\_im | 2 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| study\_name | subgroup | model\_type | process\_a | process\_b | n\_models |
| lasa | female | aehplus | pef | letter | 1 |
| lasa | female | aehplus | pef | raven | 1 |
| lasa | female | aehplus | pef | word\_im | 1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| study\_name | subgroup | model\_type | process\_a | process\_b | n\_models |
| lasa | male | aehplus | pef | letter | 1 |
| lasa | male | aehplus | pef | raven | 1 |
| lasa | male | aehplus | pef | word\_im | 1 |

# female

Gender = *female*; Model type: *aehplus*; Process (a) = *pef*; Process (b): *letter*, *raven*, *word\_im*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | letter | raven | word\_im | mean(sd) |
| a | Level | 352.09(4.52), <.01 | 352.05(4.51), <.01 | 352.00(4.52), <.01 | 352.05(0.05) |
| a | Slope | -3.80(0.36), <.01 | -3.79(0.36), <.01 | -3.77(0.36), <.01 | -3.79(0.02) |
| a | Level \* age | -4.50(0.36), <.01 | -4.50(0.36), <.01 | -4.51(0.36), <.01 | -4.50(0.01) |
| a | Level \* education | 3.08(0.87), <.01 | 3.08(0.87), <.01 | 3.07(0.87), <.01 | 3.08(0.00) |
| a | Level \* height | 2.52(0.41), <.01 | 2.52(0.41), <.01 | 2.53(0.41), <.01 | 2.52(0.01) |
| a | Level \* smoking | -30.62(6.89), <.01 | -30.73(6.88), <.01 | -30.55(6.89), <.01 | -30.63(0.09) |
| a | Level \* cardio | -12.32(7.36), .09 | -12.36(7.35), .09 | -12.34(7.36), .09 | -12.34(0.02) |
| a | Level \* diabetes | -3.75(12.46), .76 | -3.72(12.49), .77 | -3.83(12.47), .76 | -3.77(0.06) |
| a | Slope \* age | -0.14(0.03), <.01 | -0.14(0.03), <.01 | -0.13(0.03), <.01 | -0.14(0.00) |
| a | Slope \* education | -0.08(0.06), .19 | -0.09(0.06), .18 | -0.09(0.06), .18 | -0.09(0.00) |
| a | Slope \* height | -0.04(0.03), .19 | -0.04(0.03), .21 | -0.04(0.03), .21 | -0.04(0.00) |
| a | Slope \* smoking | -0.82(0.47), .08 | -0.80(0.47), .09 | -0.84(0.47), .07 | -0.82(0.02) |
| a | Slope \* cardio | 0.03(0.52), .95 | 0.07(0.52), .90 | 0.02(0.52), .96 | 0.04(0.02) |
| a | Slope \* diabetes | -0.93(1.13), .41 | -0.91(1.15), .43 | -0.85(1.15), .46 | -0.90(0.04) |
| b | Level | 24.26(0.35), <.01 | 17.82(0.18), <.01 | 21.04(0.28), <.01 | --- |
| b | Slope | -0.34(0.02), <.01 | -0.17(0.02), <.01 | -0.29(0.03), <.01 | --- |
| b | Level \* age | -0.33(0.03), <.01 | -0.15(0.01), <.01 | -0.29(0.02), <.01 | --- |
| b | Level \* education | 0.85(0.07), <.01 | 0.40(0.03), <.01 | 0.47(0.05), <.01 | --- |
| b | Level \* height | 0.08(0.03), .01 | 0.01(0.02), .70 | 0.01(0.03), .59 | --- |
| b | Level \* smoking | -0.58(0.54), .28 | -0.66(0.28), .02 | -0.46(0.49), .35 | --- |
| b | Level \* cardio | -1.02(0.54), .06 | -0.04(0.29), .90 | -0.60(0.48), .21 | --- |
| b | Level \* diabetes | -0.71(1.00), .48 | -0.83(0.56), .14 | -0.94(0.79), .24 | --- |
| b | Slope \* age | -0.01(0.00), <.01 | -0.00(0.00), <.01 | 0.00(0.00), .96 | --- |
| b | Slope \* education | -0.01(0.00), .06 | 0.00(0.00), .80 | -0.00(0.00), .62 | --- |
| b | Slope \* height | 0.00(0.00), .86 | 0.00(0.00), .83 | 0.00(0.00), .33 | --- |
| b | Slope \* smoking | 0.01(0.03), .80 | 0.02(0.02), .49 | -0.03(0.04), .43 | --- |
| b | Slope \* cardio | 0.00(0.04), .92 | -0.04(0.03), .09 | -0.00(0.05), .97 | --- |
| b | Slope \* diabetes | -0.13(0.10), .17 | -0.08(0.06), .12 | -0.05(0.08), .53 | --- |
| a | Var (Level) | 3902.40(273.52), <.01 | 3922.55(277.38), <.01 | 3921.81(276.94), <.01 | 3915.59(11.43) |
| a | Var (Slope) | 1.15(0.78), .14 | 1.66(1.29), .20 | 1.61(1.31), .22 | 1.47(0.28) |
| a | Var (Residual) | 2096.08(136.13), <.01 | 2082.58(137.67), <.01 | 2083.64(139.15), <.01 | 2087.43(7.51) |
| a | Covar (Level, Slope) | 24.32(13.29), .07 | 20.23(14.83), .17 | 20.74(14.71), .16 | 21.76(2.23) |
| b | Var (Level) | 28.91(1.54), <.01 | 5.72(0.43), <.01 | 13.88(1.32), <.01 | --- |
| b | Var (Slope) | 0.04(0.01), <.01 | 0.00(0.00), .34 | 0.01(0.01), .53 | --- |
| b | Var (Residual) | 5.95(0.26), <.01 | 5.34(0.23), <.01 | 16.63(0.66), <.01 | --- |
| b | Covar (Level, Slope) | -0.12(0.08), .13 | 0.04(0.03), .19 | 0.10(0.10), .32 | --- |
| ab | Covar (Levels) | 74.21(15.62), <.01 | 43.20(8.05), <.01 | 37.66(13.01), <.01 | --- |
| ab | Covar (Slopes) | -0.01(0.06), .91 | -0.01(0.04), .76 | 0.01(0.06), .86 | --- |
| ab | Covar (Residuals) | 12.67(3.60), <.01 | 0.53(2.73), .85 | 25.45(4.52), <.01 | --- |
|  | Correlation of Levels | 0.221 | 0.288 | 0.16 | 0.22(0.06) |
|  | Correlation of Slopes | -0.034 | -0.156 | 0.10 | -0.03(0.13) |
|  | Correlation of Residuals | 0.113 | 0.005 | 0.14 | 0.09(0.07) |
|  | N | 782 | 782 | 782 | 782.00(0.00) |
|  | occasions | 6 | 6 | 6 | 6.00(0.00) |
|  | parameters | 41 | 41 | 41 | 41.00(0.00) |
|  | LL | -22,762 | -22,940 | -23,544 | -2.308195e+04(410) |
|  | AIC | 45,606 | 45,961 | 47,170 | 4.624591e+04(820) |
|  | BIC | 45,797 | 46,153 | 47,361 | 4.643704e+04(820) |

## letter

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

|  |  |  |  |
| --- | --- | --- | --- |
| process | label | aehplus | mean(sd) |
| a | Level | 352.09(4.52), <.01 | 352.09(NA) |
| a | Slope | -3.80(0.36), <.01 | -3.80(NA) |
| a | Level \* age | -4.50(0.36), <.01 | -4.50(NA) |
| a | Level \* education | 3.08(0.87), <.01 | 3.08(NA) |
| a | Level \* height | 2.52(0.41), <.01 | 2.52(NA) |
| a | Level \* smoking | -30.62(6.89), <.01 | -30.62(NA) |
| a | Level \* cardio | -12.32(7.36), .09 | -12.32(NA) |
| a | Level \* diabetes | -3.75(12.46), .76 | -3.75(NA) |
| a | Slope \* age | -0.14(0.03), <.01 | -0.14(NA) |
| a | Slope \* education | -0.08(0.06), .19 | -0.08(NA) |
| a | Slope \* height | -0.04(0.03), .19 | -0.04(NA) |
| a | Slope \* smoking | -0.82(0.47), .08 | -0.82(NA) |
| a | Slope \* cardio | 0.03(0.52), .95 | 0.03(NA) |
| a | Slope \* diabetes | -0.93(1.13), .41 | -0.93(NA) |
| b | Level | 24.26(0.35), <.01 | 24.26(NA) |
| b | Slope | -0.34(0.02), <.01 | -0.34(NA) |
| b | Level \* age | -0.33(0.03), <.01 | -0.33(NA) |
| b | Level \* education | 0.85(0.07), <.01 | 0.85(NA) |
| b | Level \* height | 0.08(0.03), .01 | 0.08(NA) |
| b | Level \* smoking | -0.58(0.54), .28 | -0.58(NA) |
| b | Level \* cardio | -1.02(0.54), .06 | -1.02(NA) |
| b | Level \* diabetes | -0.71(1.00), .48 | -0.71(NA) |
| b | Slope \* age | -0.01(0.00), <.01 | -0.01(NA) |
| b | Slope \* education | -0.01(0.00), .06 | -0.01(NA) |
| b | Slope \* height | 0.00(0.00), .86 | 0.00(NA) |
| b | Slope \* smoking | 0.01(0.03), .80 | 0.01(NA) |
| b | Slope \* cardio | 0.00(0.04), .92 | 0.00(NA) |
| b | Slope \* diabetes | -0.13(0.10), .17 | -0.13(NA) |
| a | Var (Level) | 3902.40(273.52), <.01 | 3902.40(NA) |
| a | Var (Slope) | 1.15(0.78), .14 | 1.15(NA) |
| a | Var (Residual) | 2096.08(136.13), <.01 | 2096.08(NA) |
| a | Covar (Level, Slope) | 24.32(13.29), .07 | 24.32(NA) |
| b | Var (Level) | 28.91(1.54), <.01 | 28.91(NA) |
| b | Var (Slope) | 0.04(0.01), <.01 | 0.04(NA) |
| b | Var (Residual) | 5.95(0.26), <.01 | 5.95(NA) |
| b | Covar (Level, Slope) | -0.12(0.08), .13 | -0.12(NA) |
| ab | Covar (Levels) | 74.21(15.62), <.01 | 74.21(NA) |
| ab | Covar (Slopes) | -0.01(0.06), .91 | -0.01(NA) |
| ab | Covar (Residuals) | 12.67(3.60), <.01 | 12.67(NA) |
|  | Correlation of Levels | 0.221 | 0.22(NA) |
|  | Correlation of Slopes | -0.034 | -0.03(NA) |
|  | Correlation of Residuals | 0.113 | 0.11(NA) |
|  | N | 782 | 782.00(NA) |
|  | occasions | 6 | 6.00(NA) |
|  | parameters | 41 | 41.00(NA) |
|  | LL | -22,762 | -2.276212e+04(NA) |
|  | AIC | 45,606 | 4.560623e+04(NA) |
|  | BIC | 45,797 | 4.579737e+04(NA) |

## raven

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

|  |  |  |  |
| --- | --- | --- | --- |
| process | label | aehplus | mean(sd) |
| a | Level | 352.05(4.51), <.01 | 352.05(NA) |
| a | Slope | -3.79(0.36), <.01 | -3.79(NA) |
| a | Level \* age | -4.50(0.36), <.01 | -4.50(NA) |
| a | Level \* education | 3.08(0.87), <.01 | 3.08(NA) |
| a | Level \* height | 2.52(0.41), <.01 | 2.52(NA) |
| a | Level \* smoking | -30.73(6.88), <.01 | -30.73(NA) |
| a | Level \* cardio | -12.36(7.35), .09 | -12.36(NA) |
| a | Level \* diabetes | -3.72(12.49), .77 | -3.72(NA) |
| a | Slope \* age | -0.14(0.03), <.01 | -0.14(NA) |
| a | Slope \* education | -0.09(0.06), .18 | -0.09(NA) |
| a | Slope \* height | -0.04(0.03), .21 | -0.04(NA) |
| a | Slope \* smoking | -0.80(0.47), .09 | -0.80(NA) |
| a | Slope \* cardio | 0.07(0.52), .90 | 0.07(NA) |
| a | Slope \* diabetes | -0.91(1.15), .43 | -0.91(NA) |
| b | Level | 17.82(0.18), <.01 | 17.82(NA) |
| b | Slope | -0.17(0.02), <.01 | -0.17(NA) |
| b | Level \* age | -0.15(0.01), <.01 | -0.15(NA) |
| b | Level \* education | 0.40(0.03), <.01 | 0.40(NA) |
| b | Level \* height | 0.01(0.02), .70 | 0.01(NA) |
| b | Level \* smoking | -0.66(0.28), .02 | -0.66(NA) |
| b | Level \* cardio | -0.04(0.29), .90 | -0.04(NA) |
| b | Level \* diabetes | -0.83(0.56), .14 | -0.83(NA) |
| b | Slope \* age | -0.00(0.00), <.01 | -0.00(NA) |
| b | Slope \* education | 0.00(0.00), .80 | 0.00(NA) |
| b | Slope \* height | 0.00(0.00), .83 | 0.00(NA) |
| b | Slope \* smoking | 0.02(0.02), .49 | 0.02(NA) |
| b | Slope \* cardio | -0.04(0.03), .09 | -0.04(NA) |
| b | Slope \* diabetes | -0.08(0.06), .12 | -0.08(NA) |
| a | Var (Level) | 3922.55(277.38), <.01 | 3922.55(NA) |
| a | Var (Slope) | 1.66(1.29), .20 | 1.66(NA) |
| a | Var (Residual) | 2082.58(137.67), <.01 | 2082.58(NA) |
| a | Covar (Level, Slope) | 20.23(14.83), .17 | 20.23(NA) |
| b | Var (Level) | 5.72(0.43), <.01 | 5.72(NA) |
| b | Var (Slope) | 0.00(0.00), .34 | 0.00(NA) |
| b | Var (Residual) | 5.34(0.23), <.01 | 5.34(NA) |
| b | Covar (Level, Slope) | 0.04(0.03), .19 | 0.04(NA) |
| ab | Covar (Levels) | 43.20(8.05), <.01 | 43.20(NA) |
| ab | Covar (Slopes) | -0.01(0.04), .76 | -0.01(NA) |
| ab | Covar (Residuals) | 0.53(2.73), .85 | 0.53(NA) |
|  | Correlation of Levels | 0.288 | 0.29(NA) |
|  | Correlation of Slopes | -0.156 | -0.16(NA) |
|  | Correlation of Residuals | 0.005 | 0.00(NA) |
|  | N | 782 | 782.00(NA) |
|  | occasions | 6 | 6.00(NA) |
|  | parameters | 41 | 41.00(NA) |
|  | LL | -22,940 | -2.293974e+04(NA) |
|  | AIC | 45,961 | 4.596147e+04(NA) |
|  | BIC | 46,153 | 4.615261e+04(NA) |

## word\_im

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

|  |  |  |  |
| --- | --- | --- | --- |
| process | label | aehplus | mean(sd) |
| a | Level | 352.00(4.52), <.01 | 352.00(NA) |
| a | Slope | -3.77(0.36), <.01 | -3.77(NA) |
| a | Level \* age | -4.51(0.36), <.01 | -4.51(NA) |
| a | Level \* education | 3.07(0.87), <.01 | 3.07(NA) |
| a | Level \* height | 2.53(0.41), <.01 | 2.53(NA) |
| a | Level \* smoking | -30.55(6.89), <.01 | -30.55(NA) |
| a | Level \* cardio | -12.34(7.36), .09 | -12.34(NA) |
| a | Level \* diabetes | -3.83(12.47), .76 | -3.83(NA) |
| a | Slope \* age | -0.13(0.03), <.01 | -0.13(NA) |
| a | Slope \* education | -0.09(0.06), .18 | -0.09(NA) |
| a | Slope \* height | -0.04(0.03), .21 | -0.04(NA) |
| a | Slope \* smoking | -0.84(0.47), .07 | -0.84(NA) |
| a | Slope \* cardio | 0.02(0.52), .96 | 0.02(NA) |
| a | Slope \* diabetes | -0.85(1.15), .46 | -0.85(NA) |
| b | Level | 21.04(0.28), <.01 | 21.04(NA) |
| b | Slope | -0.29(0.03), <.01 | -0.29(NA) |
| b | Level \* age | -0.29(0.02), <.01 | -0.29(NA) |
| b | Level \* education | 0.47(0.05), <.01 | 0.47(NA) |
| b | Level \* height | 0.01(0.03), .59 | 0.01(NA) |
| b | Level \* smoking | -0.46(0.49), .35 | -0.46(NA) |
| b | Level \* cardio | -0.60(0.48), .21 | -0.60(NA) |
| b | Level \* diabetes | -0.94(0.79), .24 | -0.94(NA) |
| b | Slope \* age | 0.00(0.00), .96 | 0.00(NA) |
| b | Slope \* education | -0.00(0.00), .62 | -0.00(NA) |
| b | Slope \* height | 0.00(0.00), .33 | 0.00(NA) |
| b | Slope \* smoking | -0.03(0.04), .43 | -0.03(NA) |
| b | Slope \* cardio | -0.00(0.05), .97 | -0.00(NA) |
| b | Slope \* diabetes | -0.05(0.08), .53 | -0.05(NA) |
| a | Var (Level) | 3921.81(276.94), <.01 | 3921.81(NA) |
| a | Var (Slope) | 1.61(1.31), .22 | 1.61(NA) |
| a | Var (Residual) | 2083.64(139.15), <.01 | 2083.64(NA) |
| a | Covar (Level, Slope) | 20.74(14.71), .16 | 20.74(NA) |
| b | Var (Level) | 13.88(1.32), <.01 | 13.88(NA) |
| b | Var (Slope) | 0.01(0.01), .53 | 0.01(NA) |
| b | Var (Residual) | 16.63(0.66), <.01 | 16.63(NA) |
| b | Covar (Level, Slope) | 0.10(0.10), .32 | 0.10(NA) |
| ab | Covar (Levels) | 37.66(13.01), <.01 | 37.66(NA) |
| ab | Covar (Slopes) | 0.01(0.06), .86 | 0.01(NA) |
| ab | Covar (Residuals) | 25.45(4.52), <.01 | 25.45(NA) |
|  | Correlation of Levels | 0.16 | 0.16(NA) |
|  | Correlation of Slopes | 0.10 | 0.10(NA) |
|  | Correlation of Residuals | 0.14 | 0.14(NA) |
|  | N | 782 | 782.00(NA) |
|  | occasions | 6 | 6.00(NA) |
|  | parameters | 41 | 41.00(NA) |
|  | LL | -23,544 | -2.354401e+04(NA) |
|  | AIC | 47,170 | 4.717001e+04(NA) |
|  | BIC | 47,361 | 4.736115e+04(NA) |

## Summary

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

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Levels | letter | 0.22 |
| Correlation of Levels | raven | 0.29 |
| Correlation of Levels | word\_im | 0.16 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Slopes | letter | -0.03 |
| Correlation of Slopes | raven | -0.16 |
| Correlation of Slopes | word\_im | 0.10 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Residuals | letter | 0.11 |
| Correlation of Residuals | raven | 0.00 |
| Correlation of Residuals | word\_im | 0.14 |

# male

Gender = *male*; Model type: *aehplus*; Process (a) = *pef*; Process (b): *letter*, *raven*, *word\_im*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | letter | raven | word\_im | mean(sd) |
| a | Level | 468.55(6.54), <.01 | 468.33(6.54), <.01 | 468.42(6.53), <.01 | 468.43(0.11) |
| a | Slope | -5.40(0.55), <.01 | -5.30(0.56), <.01 | -5.31(0.54), <.01 | -5.34(0.06) |
| a | Level \* age | -6.52(0.47), <.01 | -6.51(0.47), <.01 | -6.52(0.47), <.01 | -6.52(0.00) |
| a | Level \* education | 4.44(1.11), <.01 | 4.47(1.11), <.01 | 4.45(1.11), <.01 | 4.45(0.01) |
| a | Level \* height | 3.17(0.50), <.01 | 3.19(0.50), <.01 | 3.18(0.50), <.01 | 3.18(0.01) |
| a | Level \* smoking | -52.92(7.94), <.01 | -53.26(7.94), <.01 | -52.98(7.93), <.01 | -53.05(0.18) |
| a | Level \* cardio | -0.88(8.45), .92 | -0.57(8.45), .95 | -0.76(8.45), .93 | -0.73(0.16) |
| a | Level \* diabetes | 1.13(14.27), .94 | 1.14(14.32), .94 | 1.32(14.25), .93 | 1.20(0.11) |
| a | Slope \* age | -0.16(0.04), <.01 | -0.16(0.04), <.01 | -0.16(0.04), <.01 | -0.16(0.00) |
| a | Slope \* education | -0.05(0.09), .55 | -0.06(0.09), .46 | -0.06(0.09), .47 | -0.06(0.01) |
| a | Slope \* height | -0.02(0.04), .63 | -0.03(0.04), .43 | -0.02(0.04), .55 | -0.02(0.01) |
| a | Slope \* smoking | -1.87(0.62), <.01 | -1.71(0.62), <.01 | -1.86(0.62), <.01 | -1.82(0.09) |
| a | Slope \* cardio | -1.25(0.68), .07 | -1.35(0.68), .05 | -1.30(0.68), .06 | -1.30(0.05) |
| a | Slope \* diabetes | -1.53(1.49), .30 | -1.55(1.47), .29 | -1.59(1.46), .27 | -1.56(0.03) |
| b | Level | 22.82(0.35), <.01 | 17.65(0.19), <.01 | 17.60(0.28), <.01 | --- |
| b | Slope | -0.37(0.03), <.01 | -0.17(0.02), <.01 | -0.20(0.03), <.01 | --- |
| b | Level \* age | -0.31(0.02), <.01 | -0.15(0.01), <.01 | -0.25(0.02), <.01 | --- |
| b | Level \* education | 0.76(0.06), <.01 | 0.36(0.03), <.01 | 0.41(0.05), <.01 | --- |
| b | Level \* height | 0.10(0.03), <.01 | 0.06(0.02), <.01 | 0.03(0.02), .25 | --- |
| b | Level \* smoking | -0.71(0.43), .10 | -0.24(0.24), .32 | -0.38(0.37), .31 | --- |
| b | Level \* cardio | -0.35(0.44), .43 | -0.45(0.25), .07 | 0.08(0.36), .83 | --- |
| b | Level \* diabetes | -2.16(0.94), .02 | -0.97(0.50), .05 | -0.89(0.71), .21 | --- |
| b | Slope \* age | -0.01(0.00), <.01 | -0.01(0.00), <.01 | -0.00(0.00), .23 | --- |
| b | Slope \* education | -0.01(0.00), .08 | -0.00(0.00), .69 | -0.01(0.00), .03 | --- |
| b | Slope \* height | 0.00(0.00), .49 | 0.00(0.00), .72 | 0.00(0.00), .43 | --- |
| b | Slope \* smoking | -0.06(0.03), .05 | 0.01(0.02), .79 | -0.03(0.04), .46 | --- |
| b | Slope \* cardio | 0.00(0.03), .95 | 0.01(0.02), .73 | 0.00(0.04), .92 | --- |
| b | Slope \* diabetes | -0.01(0.07), .93 | -0.05(0.05), .35 | -0.22(0.07), <.01 | --- |
| a | Var (Level) | 9161.99(602.59), <.01 | 9164.55(601.81), <.01 | 9149.29(602.09), <.01 | 9158.61(8.17) |
| a | Var (Slope) | 14.66(3.33), <.01 | 14.23(3.27), <.01 | 14.14(3.33), <.01 | 14.35(0.28) |
| a | Var (Residual) | 2629.74(155.54), <.01 | 2638.85(156.43), <.01 | 2638.22(156.71), <.01 | 2635.60(5.09) |
| a | Covar (Level, Slope) | 20.00(32.63), .54 | 20.21(32.41), .53 | 22.72(32.84), .49 | 20.98(1.51) |
| b | Var (Level) | 26.81(1.54), <.01 | 6.45(0.52), <.01 | 12.55(1.08), <.01 | --- |
| b | Var (Slope) | 0.05(0.01), <.01 | 0.01(0.00), .03 | 0.00(0.01), .61 | --- |
| b | Var (Residual) | 5.56(0.29), <.01 | 4.21(0.20), <.01 | 14.11(0.58), <.01 | --- |
| b | Covar (Level, Slope) | -0.18(0.08), .03 | -0.01(0.04), .69 | 0.04(0.07), .55 | --- |
| ab | Covar (Levels) | 79.73(21.48), <.01 | 44.79(11.81), <.01 | 35.22(17.06), .04 | --- |
| ab | Covar (Slopes) | 0.16(0.11), .13 | 0.19(0.06), <.01 | 0.03(0.11), .81 | --- |
| ab | Covar (Residuals) | 14.97(3.66), <.01 | 3.44(2.98), .25 | 19.63(5.39), <.01 | --- |
|  | Correlation of Levels | 0.16 | 0.184 | 0.10 | 0.15(0.04) |
|  | Correlation of Slopes | 0.18 | 0.557 | 0.11 | 0.28(0.24) |
|  | Correlation of Residuals | 0.12 | 0.033 | 0.10 | 0.09(0.05) |
|  | N | 800 | 800 | 800 | 800.00(0.00) |
|  | occasions | 6 | 6 | 6 | 6.00(0.00) |
|  | parameters | 41 | 41 | 41 | 41.00(0.00) |
|  | LL | -22,701 | -22,669 | -23,259 | -2.287632e+04(332) |
|  | AIC | 45,483 | 45,421 | 46,600 | 4.583464e+04(663) |
|  | BIC | 45,676 | 45,613 | 46,792 | 4.602671e+04(663) |

## letter

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

|  |  |  |  |
| --- | --- | --- | --- |
| process | label | aehplus | mean(sd) |
| a | Level | 468.55(6.54), <.01 | 468.55(NA) |
| a | Slope | -5.40(0.55), <.01 | -5.40(NA) |
| a | Level \* age | -6.52(0.47), <.01 | -6.52(NA) |
| a | Level \* education | 4.44(1.11), <.01 | 4.44(NA) |
| a | Level \* height | 3.17(0.50), <.01 | 3.17(NA) |
| a | Level \* smoking | -52.92(7.94), <.01 | -52.92(NA) |
| a | Level \* cardio | -0.88(8.45), .92 | -0.88(NA) |
| a | Level \* diabetes | 1.13(14.27), .94 | 1.13(NA) |
| a | Slope \* age | -0.16(0.04), <.01 | -0.16(NA) |
| a | Slope \* education | -0.05(0.09), .55 | -0.05(NA) |
| a | Slope \* height | -0.02(0.04), .63 | -0.02(NA) |
| a | Slope \* smoking | -1.87(0.62), <.01 | -1.87(NA) |
| a | Slope \* cardio | -1.25(0.68), .07 | -1.25(NA) |
| a | Slope \* diabetes | -1.53(1.49), .30 | -1.53(NA) |
| b | Level | 22.82(0.35), <.01 | 22.82(NA) |
| b | Slope | -0.37(0.03), <.01 | -0.37(NA) |
| b | Level \* age | -0.31(0.02), <.01 | -0.31(NA) |
| b | Level \* education | 0.76(0.06), <.01 | 0.76(NA) |
| b | Level \* height | 0.10(0.03), <.01 | 0.10(NA) |
| b | Level \* smoking | -0.71(0.43), .10 | -0.71(NA) |
| b | Level \* cardio | -0.35(0.44), .43 | -0.35(NA) |
| b | Level \* diabetes | -2.16(0.94), .02 | -2.16(NA) |
| b | Slope \* age | -0.01(0.00), <.01 | -0.01(NA) |
| b | Slope \* education | -0.01(0.00), .08 | -0.01(NA) |
| b | Slope \* height | 0.00(0.00), .49 | 0.00(NA) |
| b | Slope \* smoking | -0.06(0.03), .05 | -0.06(NA) |
| b | Slope \* cardio | 0.00(0.03), .95 | 0.00(NA) |
| b | Slope \* diabetes | -0.01(0.07), .93 | -0.01(NA) |
| a | Var (Level) | 9161.99(602.59), <.01 | 9161.99(NA) |
| a | Var (Slope) | 14.66(3.33), <.01 | 14.66(NA) |
| a | Var (Residual) | 2629.74(155.54), <.01 | 2629.74(NA) |
| a | Covar (Level, Slope) | 20.00(32.63), .54 | 20.00(NA) |
| b | Var (Level) | 26.81(1.54), <.01 | 26.81(NA) |
| b | Var (Slope) | 0.05(0.01), <.01 | 0.05(NA) |
| b | Var (Residual) | 5.56(0.29), <.01 | 5.56(NA) |
| b | Covar (Level, Slope) | -0.18(0.08), .03 | -0.18(NA) |
| ab | Covar (Levels) | 79.73(21.48), <.01 | 79.73(NA) |
| ab | Covar (Slopes) | 0.16(0.11), .13 | 0.16(NA) |
| ab | Covar (Residuals) | 14.97(3.66), <.01 | 14.97(NA) |
|  | Correlation of Levels | 0.16 | 0.16(NA) |
|  | Correlation of Slopes | 0.18 | 0.18(NA) |
|  | Correlation of Residuals | 0.12 | 0.12(NA) |
|  | N | 800 | 800.00(NA) |
|  | occasions | 6 | 6.00(NA) |
|  | parameters | 41 | 41.00(NA) |
|  | LL | -22,701 | -2.270072e+04(NA) |
|  | AIC | 45,483 | 4.548343e+04(NA) |
|  | BIC | 45,676 | 4.567550e+04(NA) |

## raven

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

|  |  |  |  |
| --- | --- | --- | --- |
| process | label | aehplus | mean(sd) |
| a | Level | 468.33(6.54), <.01 | 468.33(NA) |
| a | Slope | -5.30(0.56), <.01 | -5.30(NA) |
| a | Level \* age | -6.51(0.47), <.01 | -6.51(NA) |
| a | Level \* education | 4.47(1.11), <.01 | 4.47(NA) |
| a | Level \* height | 3.19(0.50), <.01 | 3.19(NA) |
| a | Level \* smoking | -53.26(7.94), <.01 | -53.26(NA) |
| a | Level \* cardio | -0.57(8.45), .95 | -0.57(NA) |
| a | Level \* diabetes | 1.14(14.32), .94 | 1.14(NA) |
| a | Slope \* age | -0.16(0.04), <.01 | -0.16(NA) |
| a | Slope \* education | -0.06(0.09), .46 | -0.06(NA) |
| a | Slope \* height | -0.03(0.04), .43 | -0.03(NA) |
| a | Slope \* smoking | -1.71(0.62), <.01 | -1.71(NA) |
| a | Slope \* cardio | -1.35(0.68), .05 | -1.35(NA) |
| a | Slope \* diabetes | -1.55(1.47), .29 | -1.55(NA) |
| b | Level | 17.65(0.19), <.01 | 17.65(NA) |
| b | Slope | -0.17(0.02), <.01 | -0.17(NA) |
| b | Level \* age | -0.15(0.01), <.01 | -0.15(NA) |
| b | Level \* education | 0.36(0.03), <.01 | 0.36(NA) |
| b | Level \* height | 0.06(0.02), <.01 | 0.06(NA) |
| b | Level \* smoking | -0.24(0.24), .32 | -0.24(NA) |
| b | Level \* cardio | -0.45(0.25), .07 | -0.45(NA) |
| b | Level \* diabetes | -0.97(0.50), .05 | -0.97(NA) |
| b | Slope \* age | -0.01(0.00), <.01 | -0.01(NA) |
| b | Slope \* education | -0.00(0.00), .69 | -0.00(NA) |
| b | Slope \* height | 0.00(0.00), .72 | 0.00(NA) |
| b | Slope \* smoking | 0.01(0.02), .79 | 0.01(NA) |
| b | Slope \* cardio | 0.01(0.02), .73 | 0.01(NA) |
| b | Slope \* diabetes | -0.05(0.05), .35 | -0.05(NA) |
| a | Var (Level) | 9164.55(601.81), <.01 | 9164.55(NA) |
| a | Var (Slope) | 14.23(3.27), <.01 | 14.23(NA) |
| a | Var (Residual) | 2638.85(156.43), <.01 | 2638.85(NA) |
| a | Covar (Level, Slope) | 20.21(32.41), .53 | 20.21(NA) |
| b | Var (Level) | 6.45(0.52), <.01 | 6.45(NA) |
| b | Var (Slope) | 0.01(0.00), .03 | 0.01(NA) |
| b | Var (Residual) | 4.21(0.20), <.01 | 4.21(NA) |
| b | Covar (Level, Slope) | -0.01(0.04), .69 | -0.01(NA) |
| ab | Covar (Levels) | 44.79(11.81), <.01 | 44.79(NA) |
| ab | Covar (Slopes) | 0.19(0.06), <.01 | 0.19(NA) |
| ab | Covar (Residuals) | 3.44(2.98), .25 | 3.44(NA) |
|  | Correlation of Levels | 0.184 | 0.18(NA) |
|  | Correlation of Slopes | 0.557 | 0.56(NA) |
|  | Correlation of Residuals | 0.033 | 0.03(NA) |
|  | N | 800 | 800.00(NA) |
|  | occasions | 6 | 6.00(NA) |
|  | parameters | 41 | 41.00(NA) |
|  | LL | -22,669 | -2.266948e+04(NA) |
|  | AIC | 45,421 | 4.542096e+04(NA) |
|  | BIC | 45,613 | 4.561303e+04(NA) |

## word\_im

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

|  |  |  |  |
| --- | --- | --- | --- |
| process | label | aehplus | mean(sd) |
| a | Level | 468.42(6.53), <.01 | 468.42(NA) |
| a | Slope | -5.31(0.54), <.01 | -5.31(NA) |
| a | Level \* age | -6.52(0.47), <.01 | -6.52(NA) |
| a | Level \* education | 4.45(1.11), <.01 | 4.45(NA) |
| a | Level \* height | 3.18(0.50), <.01 | 3.18(NA) |
| a | Level \* smoking | -52.98(7.93), <.01 | -52.98(NA) |
| a | Level \* cardio | -0.76(8.45), .93 | -0.76(NA) |
| a | Level \* diabetes | 1.32(14.25), .93 | 1.32(NA) |
| a | Slope \* age | -0.16(0.04), <.01 | -0.16(NA) |
| a | Slope \* education | -0.06(0.09), .47 | -0.06(NA) |
| a | Slope \* height | -0.02(0.04), .55 | -0.02(NA) |
| a | Slope \* smoking | -1.86(0.62), <.01 | -1.86(NA) |
| a | Slope \* cardio | -1.30(0.68), .06 | -1.30(NA) |
| a | Slope \* diabetes | -1.59(1.46), .27 | -1.59(NA) |
| b | Level | 17.60(0.28), <.01 | 17.60(NA) |
| b | Slope | -0.20(0.03), <.01 | -0.20(NA) |
| b | Level \* age | -0.25(0.02), <.01 | -0.25(NA) |
| b | Level \* education | 0.41(0.05), <.01 | 0.41(NA) |
| b | Level \* height | 0.03(0.02), .25 | 0.03(NA) |
| b | Level \* smoking | -0.38(0.37), .31 | -0.38(NA) |
| b | Level \* cardio | 0.08(0.36), .83 | 0.08(NA) |
| b | Level \* diabetes | -0.89(0.71), .21 | -0.89(NA) |
| b | Slope \* age | -0.00(0.00), .23 | -0.00(NA) |
| b | Slope \* education | -0.01(0.00), .03 | -0.01(NA) |
| b | Slope \* height | 0.00(0.00), .43 | 0.00(NA) |
| b | Slope \* smoking | -0.03(0.04), .46 | -0.03(NA) |
| b | Slope \* cardio | 0.00(0.04), .92 | 0.00(NA) |
| b | Slope \* diabetes | -0.22(0.07), <.01 | -0.22(NA) |
| a | Var (Level) | 9149.29(602.09), <.01 | 9149.29(NA) |
| a | Var (Slope) | 14.14(3.33), <.01 | 14.14(NA) |
| a | Var (Residual) | 2638.22(156.71), <.01 | 2638.22(NA) |
| a | Covar (Level, Slope) | 22.72(32.84), .49 | 22.72(NA) |
| b | Var (Level) | 12.55(1.08), <.01 | 12.55(NA) |
| b | Var (Slope) | 0.00(0.01), .61 | 0.00(NA) |
| b | Var (Residual) | 14.11(0.58), <.01 | 14.11(NA) |
| b | Covar (Level, Slope) | 0.04(0.07), .55 | 0.04(NA) |
| ab | Covar (Levels) | 35.22(17.06), .04 | 35.22(NA) |
| ab | Covar (Slopes) | 0.03(0.11), .81 | 0.03(NA) |
| ab | Covar (Residuals) | 19.63(5.39), <.01 | 19.63(NA) |
|  | Correlation of Levels | 0.10 | 0.10(NA) |
|  | Correlation of Slopes | 0.11 | 0.11(NA) |
|  | Correlation of Residuals | 0.10 | 0.10(NA) |
|  | N | 800 | 800.00(NA) |
|  | occasions | 6 | 6.00(NA) |
|  | parameters | 41 | 41.00(NA) |
|  | LL | -23,259 | -2.325876e+04(NA) |
|  | AIC | 46,600 | 4.659951e+04(NA) |
|  | BIC | 46,792 | 4.679158e+04(NA) |

## Summary

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

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Levels | letter | 0.16 |
| Correlation of Levels | raven | 0.18 |
| Correlation of Levels | word\_im | 0.10 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Slopes | letter | 0.18 |
| Correlation of Slopes | raven | 0.56 |
| Correlation of Slopes | word\_im | 0.11 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Residuals | letter | 0.12 |
| Correlation of Residuals | raven | 0.03 |
| Correlation of Residuals | word\_im | 0.10 |

#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