EAS : Seed report

Date: 2016-11-07

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

# Available models

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

process\_a

process\_b

n\_models

pef

block

7

pef

bnt

2

pef

categories

2

pef

digit\_tot

8

pef

fas

2

pef

logic\_tot

2

pef

mmse

2

pef

symbol

10

pef

trailsb

8

study\_name

subgroup

model\_type

process\_a

process\_b

n\_models

eas

female

a

pef

digit\_tot

1

eas

female

a

pef

symbol

1

eas

female

a

pef

trailsb

1

eas

female

ae

pef

block

1

eas

female

ae

pef

digit\_tot

1

eas

female

ae

pef

symbol

1

eas

female

ae

pef

trailsb

1

eas

female

aeh

pef

block

1

eas

female

aeh

pef

digit\_tot

1

eas

female

aeh

pef

symbol

1

eas

female

aeh

pef

trailsb

1

eas

female

aehplus

pef

block

1

eas

female

aehplus

pef

bnt

1

eas

female

aehplus

pef

categories

1

eas

female

aehplus

pef

digit\_tot

1

eas

female

aehplus

pef

fas

1

eas

female

aehplus

pef

logic\_tot

1

eas

female

aehplus

pef

mmse

1

eas

female

aehplus

pef

symbol

1

eas

female

aehplus

pef

trailsb

1

eas

female

full

pef

block

1

eas

female

full

pef

symbol

1

eas

female

full

pef

trailsb

1

study\_name

subgroup

model\_type

process\_a

process\_b

n\_models

eas

male

a

pef

digit\_tot

1

eas

male

a

pef

symbol

1

eas

male

ae

pef

block

1

eas

male

ae

pef

digit\_tot

1

eas

male

ae

pef

symbol

1

eas

male

ae

pef

trailsb

1

eas

male

aeh

pef

block

1

eas

male

aeh

pef

digit\_tot

1

eas

male

aeh

pef

symbol

1

eas

male

aeh

pef

trailsb

1

eas

male

aehplus

pef

block

1

eas

male

aehplus

pef

bnt

1

eas

male

aehplus

pef

categories

1

eas

male

aehplus

pef

fas

1

eas

male

aehplus

pef

logic\_tot

1

eas

male

aehplus

pef

mmse

1

eas

male

aehplus

pef

symbol

1

eas

male

full

pef

digit\_tot

1

eas

male

full

pef

symbol

1

eas

male

full

pef

trailsb

1

# female

Gender = *female*; Model type: *aehplus*; Process (a) = *pef*; Process (b): *block*, *bnt*, *categories*, *digit\_tot*, *fas*, *logic\_tot*, *mmse*, *symbol*, *trailsb*

process

label

block

bnt

categories

digit\_tot

fas

logic\_tot

mmse

symbol

trailsb

mean(sd)

ab

Covar (Levels)

90.07 (75.15) .23

38.07 (22.34) .09

82.62 (74.98) .27

-28.45 (25.50) .26

29.54 (106.47) .78

81.32 (54.69) .14

20.91 (12.09) .08

201.39 (111.31) .07

-818.94 (707.87) .25

---

ab

Covar (Slopes)

-0.30 (2.64) .91

-0.45 (1.15) .69

-1.22 (3.96) .76

-0.76 (1.13) .50

-2.18 (3.08) .48

0.53 (2.48) .83

0.11 (0.49) .82

1.93 (2.81) .49

-5.32 (37.39) .89

---

ab

Covar (Residuals)

3.98 (17.73) .82

1.66 (7.29) .82

-9.54 (13.85) .49

4.25 (7.08) .55

1.28 (24.00) .96

17.14 (16.31) .29

-0.07 (3.23) .98

2.81 (22.77) .90

-68.68 (221.61) .76

---

er

Corr (Levels)

0.19 (0.15) .21

0.33 (0.18) .07

0.16 (0.14) .25

-0.17 (0.15) .25

0.04 (0.15) .78

0.25 (0.16) .12

0.31 (0.16) .05

0.28 (0.14) .04

-0.25 (0.20) .20

---

er

Corr (Slopes)

-0.11 (1.02) .91

-0.31 (0.74) .68

-0.16 (0.54) .76

-0.42 (0.60) .48

-0.52 (0.84) .54

0.20 (0.94) .83

0.28 (1.27) .83

0.51 (0.92) .58

-0.23 (1.59) .89

---

er

Corr (Residuals)

0.02 (0.10) .82

0.03 (0.14) .82

-0.06 (0.09) .49

0.07 (0.11) .55

0.01 (0.12) .96

0.11 (0.10) .29

-0.00 (0.11) .98

0.01 (0.10) .90

-0.04 (0.14) .76

---

a

Level

342.20 (26.25) <.01

341.34 (26.84) <.01

343.84 (25.16) <.01

343.60 (25.89) <.01

343.58 (24.89) <.01

341.08 (25.69) <.01

342.91 (27.58) <.01

342.45 (25.32) <.01

340.94 (26.56) <.01

342.44(1.13)

a

Slope

-27.18 (7.83) <.01

-26.24 (7.22) <.01

-28.00 (7.73) <.01

-28.01 (7.20) <.01

-28.26 (7.60) <.01

-26.25 (7.30) <.01

-27.53 (8.51) <.01

-27.33 (6.77) <.01

-26.21 (7.99) <.01

-27.22(0.82)

a

Level \* age

-4.25 (1.85) .02

-4.28 (1.90) .02

-4.29 (1.84) .02

-4.33 (1.86) .02

-4.27 (1.92) .03

-4.25 (1.81) .02

-4.29 (1.87) .02

-4.23 (1.80) .02

-4.19 (2.02) .04

-4.27(0.04)

a

Level \* education

-1.87 (2.75) .50

-1.81 (2.92) .54

-2.00 (2.77) .47

-1.84 (2.93) .53

-1.82 (2.71) .50

-1.77 (2.82) .53

-1.87 (2.76) .50

-1.85 (2.72) .50

-1.72 (2.70) .52

-1.84(0.08)

a

Level \* height

0.37 (1.31) .78

0.41 (1.30) .75

0.39 (1.24) .75

0.42 (1.26) .73

0.42 (1.33) .76

0.40 (1.20) .74

0.40 (1.20) .73

0.42 (1.22) .73

0.46 (1.27) .72

0.41(0.02)

a

Level \* smoking

-0.48 (13.03) .97

-0.02 (17.75) .99

-0.81 (14.50) .95

-0.66 (15.24) .96

-0.92 (16.73) .96

-0.50 (13.62) .97

-0.48 (13.74) .97

-0.39 (15.10) .98

-0.21 (15.50) .99

-0.50(0.28)

a

Level \* cardio

-22.81 (36.56) .53

-20.09 (27.01) .46

-23.40 (25.18) .35

-23.32 (29.17) .42

-22.96 (25.21) .36

-20.77 (33.81) .54

-22.51 (24.46) .36

-22.98 (28.80) .42

-23.02 (29.25) .43

-22.43(1.18)

a

Level \* diabetes

-25.83 (26.42) .33

-27.08 (25.93) .30

-26.05 (26.77) .33

-25.87 (26.09) .32

-25.73 (26.01) .32

-25.45 (28.04) .36

-25.80 (27.88) .35

-25.69 (25.50) .31

-26.52 (24.59) .28

-26.00(0.50)

a

Slope \* age

0.15 (0.50) .76

0.16 (0.51) .75

0.19 (0.51) .71

0.22 (0.52) .68

0.18 (0.54) .73

0.15 (0.53) .78

0.15 (0.50) .77

0.15 (0.53) .78

0.11 (0.66) .87

0.16(0.03)

a

Slope \* education

0.56 (0.85) .51

0.49 (0.86) .57

0.61 (0.90) .50

0.52 (0.84) .54

0.52 (0.81) .52

0.48 (0.90) .59

0.57 (0.96) .55

0.54 (0.81) .50

0.45 (0.90) .62

0.53(0.05)

a

Slope \* height

0.63 (0.29) .03

0.62 (0.30) .04

0.63 (0.31) .05

0.60 (0.35) .09

0.62 (0.31) .04

0.61 (0.29) .03

0.61 (0.31) .05

0.61 (0.32) .05

0.57 (0.34) .10

0.61(0.02)

a

Slope \* smoking

1.86 (3.28) .57

1.61 (4.82) .74

2.05 (3.42) .55

1.95 (3.42) .57

2.19 (3.87) .57

1.77 (3.35) .60

1.90 (3.18) .55

1.89 (3.69) .61

1.77 (4.27) .68

1.89(0.17)

a

Slope \* cardio

3.10 (10.80) .77

1.03 (9.56) .91

3.72 (8.39) .66

3.89 (9.43) .68

3.28 (8.14) .69

1.94 (13.93) .89

3.48 (10.03) .73

3.40 (10.31) .74

3.38 (9.52) .72

3.02(0.93)

a

Slope \* diabetes

-0.78 (9.39) .93

-0.02 (9.06) .99

-0.81 (9.12) .93

-0.57 (7.49) .94

-0.60 (8.78) .95

-0.90 (9.06) .92

-0.63 (9.50) .95

-0.90 (8.61) .92

-0.32 (8.49) .97

-0.61(0.29)

b

Level

18.12 (2.53) <.01

10.70 (0.73) <.01

38.24 (2.76) <.01

13.55 (0.99) <.01

30.06 (3.79) <.01

18.13 (2.35) <.01

26.06 (0.36) <.01

41.02 (3.20) <.01

166.61 (22.47) <.01

---

b

Slope

1.18 (0.49) .02

-0.03 (0.22) .89

-0.64 (0.68) .35

0.28 (0.22) .20

0.60 (0.78) .44

0.01 (0.46) .99

0.06 (0.09) .51

0.38 (0.59) .52

1.23 (6.88) .86

---

b

Level \* age

-0.12 (0.16) .46

-0.04 (0.06) .47

-0.36 (0.18) .05

-0.06 (0.07) .40

-0.31 (0.27) .25

-0.13 (0.14) .36

-0.01 (0.03) .85

-0.42 (0.26) .11

1.95 (1.50) .19

---

b

Level \* education

0.94 (0.27) <.01

0.26 (0.07) <.01

0.71 (0.29) .01

0.28 (0.09) <.01

1.24 (0.40) <.01

0.74 (0.23) <.01

0.09 (0.04) .03

1.79 (0.35) <.01

-7.85 (2.29) <.01

---

b

Level \* height

-0.01 (0.11) .94

0.00 (0.03) .97

-0.14 (0.12) .27

0.03 (0.04) .46

-0.13 (0.19) .50

0.10 (0.10) .31

0.01 (0.02) .56

0.05 (0.18) .77

0.23 (0.89) .80

---

b

Level \* smoking

1.68 (1.48) .25

0.40 (0.28) .15

1.31 (1.40) .35

0.38 (0.54) .48

2.97 (1.70) .08

0.51 (1.21) .67

0.24 (0.26) .37

2.33 (2.11) .27

-10.65 (10.53) .31

---

b

Level \* cardio

-0.14 (3.31) .97

-0.85 (0.48) .08

1.00 (2.96) .73

-0.28 (1.09) .80

-1.98 (3.76) .60

0.44 (2.94) .88

-0.12 (0.25) .63

-5.00 (6.64) .45

25.78 (18.22) .16

---

b

Level \* diabetes

-4.54 (2.63) .08

-1.67 (0.50) <.01

-5.21 (2.32) .02

-1.65 (0.84) .05

-6.79 (2.89) .02

-1.30 (2.29) .57

-0.14 (0.35) .68

-6.98 (2.60) .01

34.98 (20.40) .09

---

b

Slope \* age

-0.05 (0.03) .08

-0.01 (0.01) .26

-0.03 (0.04) .48

-0.02 (0.02) .25

-0.08 (0.04) .06

-0.01 (0.03) .69

-0.01 (0.00) .27

-0.05 (0.03) .15

0.14 (0.39) .73

---

b

Slope \* education

-0.10 (0.05) .06

0.00 (0.02) .93

0.07 (0.06) .27

-0.02 (0.02) .42

0.04 (0.08) .64

-0.00 (0.05) .98

0.00 (0.01) .82

-0.06 (0.08) .42

0.18 (0.68) .79

---

b

Slope \* height

-0.01 (0.02) .56

0.00 (0.01) .88

0.02 (0.03) .51

-0.01 (0.01) .11

0.01 (0.02) .80

-0.01 (0.02) .61

-0.00 (0.00) .41

0.01 (0.03) .84

-0.06 (0.24) .82

---

b

Slope \* smoking

-0.16 (0.30) .59

0.03 (0.12) .80

-0.12 (0.43) .78

-0.01 (0.13) .95

-0.10 (0.40) .81

0.02 (0.33) .95

-0.02 (0.06) .79

0.04 (0.42) .92

-0.63 (3.38) .85

---

b

Slope \* cardio

-0.18 (1.01) .86

0.21 (0.24) .38

0.04 (0.64) .95

-0.13 (0.36) .71

0.05 (0.67) .94

0.20 (0.90) .82

-0.03 (0.06) .67

0.03 (0.99) .97

-1.40 (5.83) .81

---

b

Slope \* diabetes

0.24 (0.47) .60

-0.02 (0.13) .90

0.06 (0.63) .92

0.08 (0.17) .62

0.34 (0.62) .58

-0.02 (0.42) .96

0.00 (0.07) .95

-0.14 (0.45) .75

0.87 (6.36) .89

---

a

Var (Level)

4757.17 (1058.63) <.01

4795.15 (1076.44) <.01

4731.45 (1077.23) <.01

4696.38 (1063.62) <.01

4694.15 (1112.43) <.01

4740.04 (1119.15) <.01

4730.52 (1018.57) <.01

4717.27 (1064.59) <.01

4770.99 (1064.73) <.01

4737.01(33.36)

a

Var (Slope)

63.00 (37.32) .09

67.61 (40.63) .10

60.59 (48.50) .21

54.89 (37.53) .14

57.15 (40.44) .16

63.25 (44.38) .15

59.69 (36.71) .10

60.58 (40.98) .14

66.24 (44.04) .13

61.44(4.07)

a

Var (Residual)

1641.56 (98.64) <.01

1634.34 (88.65) <.01

1646.80 (102.90) <.01

1644.36 (122.02) <.01

1641.68 (91.23) <.01

1643.43 (100.58) <.01

1642.49 (83.24) <.01

1638.82 (92.29) <.01

1629.70 (85.33) <.01

1640.35(5.33)

b

Var (Level)

46.55 (9.62) <.01

2.83 (0.85) <.01

56.55 (11.05) <.01

5.80 (1.38) <.01

104.84 (23.99) <.01

22.45 (5.18) <.01

0.97 (0.25) <.01

105.78 (18.62) <.01

2288.23 (751.49) <.01

---

b

Var (Slope)

0.11 (0.30) .71

0.03 (0.03) .35

0.91 (0.45) .04

0.06 (0.05) .21

0.31 (0.51) .54

0.11 (0.20) .58

0.00 (0.01) .71

0.24 (0.43) .59

8.22 (27.63) .77

---

b

Var (Residual)

19.91 (1.67) <.01

1.71 (0.13) <.01

15.62 (1.36) <.01

2.39 (0.24) <.01

25.13 (2.10) <.01

14.44 (1.31) <.01

0.56 (0.03) <.01

28.79 (2.17) <.01

1484.54 (82.45) <.01

---

a

Covar (Level, Slope)

-364.07 (164.22) .03

-378.74 (175.52) .03

-356.83 (169.03) .04

-327.77 (157.85) .04

-333.56 (170.01) .05

-363.80 (181.81) .04

-348.69 (157.32) .03

-346.09 (168.50) .04

-369.10 (186.23) .05

-354.29(16.74)

b

Covar (Level, Slope)

-1.01 (1.65) .54

0.21 (0.17) .20

-0.26 (1.55) .87

0.03 (0.18) .86

1.46 (2.93) .62

0.57 (0.94) .54

0.00 (0.03) .98

-0.06 (2.60) .98

54.37 (152.31) .72

---

Correlation of Levels

0.191

0.327

0.160

-0.172

0.0421

0.25

0.3084

0.285

-0.248

0.13(0.21)

Correlation of Slopes

-0.114

-0.307

-0.165

-0.422

-0.5167

0.20

0.2576

0.511

-0.228

-0.09(0.34)

Correlation of Residuals

0.022

0.031

-0.059

0.068

0.0063

0.11

-0.0024

0.013

-0.044

0.02(0.05)

N

150

150

150

150

150

150

150

150

150

150.00(0.00)

occasions

7

7

7

7

7

7

7

7

7

7.00(0.00)

parameters

41

41

41

41

41

41

41

41

41

41.00(0.00)

LL

-4,401

-3,668

-4,387

-3,766

-4,528

-4,277

-3,301

-4,554

-5,694

-4,286( 685)

AIC

8,884

7,418

8,855

7,614

9,139

8,636

6,685

9,190

11,470

8,654(1,371)

BIC

9,007

7,541

8,979

7,737

9,262

8,759

6,808

9,313

11,593

8,778(1,371)

## block

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

process

label

ae

aeh

aehplus

full

ab

Covar (Levels)

98.99 (49.69) .05

104.78 (52.19) .04

90.07 (75.15) .23

88.17 (79.03) .26

ab

Covar (Slopes)

3.73 (1.23) <.01

0.21 (1.09) .85

-0.30 (2.64) .91

0.44 (2.21) .84

ab

Covar (Residuals)

-0.39 (9.43) .97

-1.25 (10.27) .90

3.98 (17.73) .82

0.44 (16.60) .98

er

Corr (Levels)

---

---

0.19 (0.15) .21

---

er

Corr (Slopes)

---

---

-0.11 (1.02) .91

---

er

Corr (Residuals)

---

---

0.02 (0.10) .82

---

a

Level

310.35 (17.37) <.01

333.07 (17.93) <.01

342.20 (26.25) <.01

339.07 (26.69) <.01

a

Slope

-10.71 (4.20) .01

-26.73 (4.00) <.01

-27.18 (7.83) <.01

-26.99 (7.29) <.01

a

Level \* age

-4.09 (1.22) <.01

-4.25 (1.29) <.01

-4.25 (1.85) .02

-4.40 (1.80) .01

a

Level \* education

0.89 (1.78) .62

-1.60 (1.88) .39

-1.87 (2.75) .50

-2.11 (2.71) .44

a

Level \* height

---

0.55 (0.85) .52

0.37 (1.31) .78

0.32 (1.30) .81

a

Level \* smoking

---

---

-0.48 (13.03) .97

-0.33 (13.19) .98

a

Level \* cardio

---

---

-22.81 (36.56) .53

-22.61 (36.18) .53

a

Level \* diabetes

---

---

-25.83 (26.42) .33

-27.79 (25.94) .28

a

Slope \* age

-0.24 (0.26) .35

0.19 (0.26) .46

0.15 (0.50) .76

0.19 (0.42) .64

a

Slope \* education

-0.40 (0.41) .33

0.60 (0.45) .19

0.56 (0.85) .51

0.74 (0.76) .33

a

Slope \* height

---

0.55 (0.20) .01

0.63 (0.29) .03

0.64 (0.29) .02

a

Slope \* smoking

---

---

1.86 (3.28) .57

1.88 (3.05) .54

a

Slope \* cardio

---

---

3.10 (10.80) .77

2.31 (10.17) .82

a

Slope \* diabetes

---

---

-0.78 (9.39) .93

-0.18 (9.68) .98

b

Level

13.93 (0.95) <.01

18.43 (1.90) <.01

18.12 (2.53) <.01

19.33 (2.75) <.01

b

Slope

1.12 (0.20) <.01

0.73 (0.37) .05

1.18 (0.49) .02

0.73 (0.49) .14

b

Level \* age

-0.16 (0.07) .02

-0.12 (0.15) .41

-0.12 (0.16) .46

-0.14 (0.16) .39

b

Level \* education

1.06 (0.11) <.01

0.92 (0.21) <.01

0.94 (0.27) <.01

0.88 (0.26) <.01

b

Level \* height

---

-0.01 (0.09) .89

-0.01 (0.11) .94

-0.01 (0.11) .96

b

Level \* smoking

---

---

1.68 (1.48) .25

1.51 (1.45) .30

b

Level \* cardio

---

---

-0.14 (3.31) .97

-0.29 (2.93) .92

b

Level \* diabetes

---

---

-4.54 (2.63) .08

-4.30 (2.58) .10

b

Slope \* age

-0.03 (0.01) .04

-0.04 (0.02) .10

-0.05 (0.03) .08

-0.04 (0.03) .17

b

Slope \* education

-0.08 (0.02) <.01

-0.07 (0.04) .09

-0.10 (0.05) .06

-0.07 (0.05) .18

b

Slope \* height

---

-0.01 (0.01) .48

-0.01 (0.02) .56

-0.01 (0.02) .63

b

Slope \* smoking

---

---

-0.16 (0.30) .59

-0.10 (0.28) .73

b

Slope \* cardio

---

---

-0.18 (1.01) .86

-0.07 (0.87) .94

b

Slope \* diabetes

---

---

0.24 (0.47) .60

0.16 (0.47) .73

a

Var (Level)

5212.32 (755.47) <.01

4780.41 (801.53) <.01

4757.17 (1058.63) <.01

4629.68 (1058.37) <.01

a

Var (Slope)

119.91 (37.08) <.01

44.62 (31.72) .16

63.00 (37.32) .09

38.91 (32.62) .23

a

Var (Residual)

1695.37 (386.98) <.01

1703.01 (503.91) <.01

1641.56 (98.64) <.01

1689.57 (104.83) <.01

b

Var (Level)

54.09 (4.90) <.01

51.46 (8.54) <.01

46.55 (9.62) <.01

46.15 (9.21) <.01

b

Var (Slope)

0.26 (0.11) .01

0.16 (0.14) .26

0.11 (0.30) .71

0.14 (0.24) .57

b

Var (Residual)

21.49 (1.14) <.01

19.77 (1.49) <.01

19.91 (1.67) <.01

19.77 (1.58) <.01

a

Covar (Level, Slope)

-454.24 (161.68) <.01

-312.88 (173.77) .07

-364.07 (164.22) .03

-307.89 (149.73) .04

b

Covar (Level, Slope)

-2.10 (0.56) <.01

-1.21 (0.93) .19

-1.01 (1.65) .54

-0.91 (1.46) .53

Correlation of Levels

0.186

0.2113

0.191

0.1907

Correlation of Slopes

0.671

0.0781

-0.114

0.1912

Correlation of Residuals

-0.002

-0.0068

0.022

0.0024

N

563

150

150

150

occasions

9

8

7

8

parameters

25

29

41

45

LL

-9,195

-4,535

-4,401

-4,524

AIC

18,439

9,128

8,884

9,138

BIC

18,548

9,216

9,007

9,273

## bnt

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

process

label

aehplus

ab

Covar (Levels)

38.07 (22.34) .09

ab

Covar (Slopes)

-0.45 (1.15) .69

ab

Covar (Residuals)

1.66 (7.29) .82

er

Corr (Levels)

0.33 (0.18) .07

er

Corr (Slopes)

-0.31 (0.74) .68

er

Corr (Residuals)

0.03 (0.14) .82

a

Level

341.34 (26.84) <.01

a

Slope

-26.24 (7.22) <.01

a

Level \* age

-4.28 (1.90) .02

a

Level \* education

-1.81 (2.92) .54

a

Level \* height

0.41 (1.30) .75

a

Level \* smoking

-0.02 (17.75) .99

a

Level \* cardio

-20.09 (27.01) .46

a

Level \* diabetes

-27.08 (25.93) .30

a

Slope \* age

0.16 (0.51) .75

a

Slope \* education

0.49 (0.86) .57

a

Slope \* height

0.62 (0.30) .04

a

Slope \* smoking

1.61 (4.82) .74

a

Slope \* cardio

1.03 (9.56) .91

a

Slope \* diabetes

-0.02 (9.06) .99

b

Level

10.70 (0.73) <.01

b

Slope

-0.03 (0.22) .89

b

Level \* age

-0.04 (0.06) .47

b

Level \* education

0.26 (0.07) <.01

b

Level \* height

0.00 (0.03) .97

b

Level \* smoking

0.40 (0.28) .15

b

Level \* cardio

-0.85 (0.48) .08

b

Level \* diabetes

-1.67 (0.50) <.01

b

Slope \* age

-0.01 (0.01) .26

b

Slope \* education

0.00 (0.02) .93

b

Slope \* height

0.00 (0.01) .88

b

Slope \* smoking

0.03 (0.12) .80

b

Slope \* cardio

0.21 (0.24) .38

b

Slope \* diabetes

-0.02 (0.13) .90

a

Var (Level)

4795.15 (1076.44) <.01

a

Var (Slope)

67.61 (40.63) .10

a

Var (Residual)

1634.34 (88.65) <.01

b

Var (Level)

2.83 (0.85) <.01

b

Var (Slope)

0.03 (0.03) .35

b

Var (Residual)

1.71 (0.13) <.01

a

Covar (Level, Slope)

-378.74 (175.52) .03

b

Covar (Level, Slope)

0.21 (0.17) .20

Correlation of Levels

0.327

Correlation of Slopes

-0.307

Correlation of Residuals

0.031

N

150

occasions

7

parameters

41

LL

-3,668

AIC

7,418

BIC

7,541

## categories

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

process

label

aehplus

ab

Covar (Levels)

82.62 (74.98) .27

ab

Covar (Slopes)

-1.22 (3.96) .76

ab

Covar (Residuals)

-9.54 (13.85) .49

er

Corr (Levels)

0.16 (0.14) .25

er

Corr (Slopes)

-0.16 (0.54) .76

er

Corr (Residuals)

-0.06 (0.09) .49

a

Level

343.84 (25.16) <.01

a

Slope

-28.00 (7.73) <.01

a

Level \* age

-4.29 (1.84) .02

a

Level \* education

-2.00 (2.77) .47

a

Level \* height

0.39 (1.24) .75

a

Level \* smoking

-0.81 (14.50) .95

a

Level \* cardio

-23.40 (25.18) .35

a

Level \* diabetes

-26.05 (26.77) .33

a

Slope \* age

0.19 (0.51) .71

a

Slope \* education

0.61 (0.90) .50

a

Slope \* height

0.63 (0.31) .05

a

Slope \* smoking

2.05 (3.42) .55

a

Slope \* cardio

3.72 (8.39) .66

a

Slope \* diabetes

-0.81 (9.12) .93

b

Level

38.24 (2.76) <.01

b

Slope

-0.64 (0.68) .35

b

Level \* age

-0.36 (0.18) .05

b

Level \* education

0.71 (0.29) .01

b

Level \* height

-0.14 (0.12) .27

b

Level \* smoking

1.31 (1.40) .35

b

Level \* cardio

1.00 (2.96) .73

b

Level \* diabetes

-5.21 (2.32) .02

b

Slope \* age

-0.03 (0.04) .48

b

Slope \* education

0.07 (0.06) .27

b

Slope \* height

0.02 (0.03) .51

b

Slope \* smoking

-0.12 (0.43) .78

b

Slope \* cardio

0.04 (0.64) .95

b

Slope \* diabetes

0.06 (0.63) .92

a

Var (Level)

4731.45 (1077.23) <.01

a

Var (Slope)

60.59 (48.50) .21

a

Var (Residual)

1646.80 (102.90) <.01

b

Var (Level)

56.55 (11.05) <.01

b

Var (Slope)

0.91 (0.45) .04

b

Var (Residual)

15.62 (1.36) <.01

a

Covar (Level, Slope)

-356.83 (169.03) .04

b

Covar (Level, Slope)

-0.26 (1.55) .87

Correlation of Levels

0.160

Correlation of Slopes

-0.165

Correlation of Residuals

-0.059

N

150

occasions

7

parameters

41

LL

-4,387

AIC

8,855

BIC

8,979

## digit\_tot

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

process

label

a

ae

aeh

aehplus

ab

Covar (Levels)

3.51 (31.06) .91

-1.14 (29.85) .97

-17.42 (25.92) .50

-28.45 (25.50) .26

ab

Covar (Slopes)

1.22 (1.07) .25

1.09 (1.06) .30

-0.75 (0.90) .40

-0.76 (1.13) .50

ab

Covar (Residuals)

0.68 (3.87) .86

0.61 (3.87) .88

4.47 (6.59) .50

4.25 (7.08) .55

er

Corr (Levels)

---

---

---

-0.17 (0.15) .25

er

Corr (Slopes)

---

---

---

-0.42 (0.60) .48

er

Corr (Residuals)

---

---

---

0.07 (0.11) .55

a

Level

317.52 (14.43) <.01

312.29 (21.04) <.01

335.31 (24.64) <.01

343.60 (25.89) <.01

a

Slope

-12.73 (3.31) <.01

-9.96 (5.25) .06

-27.66 (5.42) <.01

-28.01 (7.20) <.01

a

Level \* age

-3.97 (1.40) <.01

-4.01 (1.42) <.01

-4.40 (1.76) .01

-4.33 (1.86) .02

a

Level \* education

---

0.90 (2.26) .69

-1.64 (2.81) .56

-1.84 (2.93) .53

a

Level \* height

---

---

0.54 (1.19) .65

0.42 (1.26) .73

a

Level \* smoking

---

---

---

-0.66 (15.24) .96

a

Level \* cardio

---

---

---

-23.32 (29.17) .42

a

Level \* diabetes

---

---

---

-25.87 (26.09) .32

a

Slope \* age

-0.30 (0.36) .41

-0.29 (0.36) .42

0.28 (0.42) .50

0.22 (0.52) .68

a

Slope \* education

---

-0.46 (0.62) .46

0.58 (0.70) .41

0.52 (0.84) .54

a

Slope \* height

---

---

0.56 (0.30) .06

0.60 (0.35) .09

a

Slope \* smoking

---

---

---

1.95 (3.42) .57

a

Slope \* cardio

---

---

---

3.89 (9.43) .68

a

Slope \* diabetes

---

---

---

-0.57 (7.49) .94

b

Level

13.52 (0.30) <.01

11.20 (0.41) <.01

13.40 (0.88) <.01

13.55 (0.99) <.01

b

Slope

0.25 (0.07) <.01

0.36 (0.11) <.01

0.20 (0.18) .27

0.28 (0.22) .20

b

Level \* age

-0.04 (0.03) .21

-0.03 (0.03) .28

-0.07 (0.06) .29

-0.06 (0.07) .40

b

Level \* education

---

0.37 (0.04) <.01

0.29 (0.09) <.01

0.28 (0.09) <.01

b

Level \* height

---

---

0.03 (0.04) .56

0.03 (0.04) .46

b

Level \* smoking

---

---

---

0.38 (0.54) .48

b

Level \* cardio

---

---

---

-0.28 (1.09) .80

b

Level \* diabetes

---

---

---

-1.65 (0.84) .05

b

Slope \* age

-0.01 (0.01) .27

-0.01 (0.01) .26

-0.01 (0.01) .32

-0.02 (0.02) .25

b

Slope \* education

---

-0.02 (0.01) .12

-0.02 (0.02) .41

-0.02 (0.02) .42

b

Slope \* height

---

---

-0.01 (0.01) .19

-0.01 (0.01) .11

b

Slope \* smoking

---

---

---

-0.01 (0.13) .95

b

Slope \* cardio

---

---

---

-0.13 (0.36) .71

b

Slope \* diabetes

---

---

---

0.08 (0.17) .62

a

Var (Level)

5464.40 (916.46) <.01

5443.31 (927.60) <.01

4799.93 (1076.88) <.01

4696.38 (1063.62) <.01

a

Var (Slope)

160.62 (41.39) <.01

156.69 (41.65) <.01

41.29 (28.58) .15

54.89 (37.53) .14

a

Var (Residual)

1625.55 (61.70) <.01

1623.78 (63.01) <.01

1700.25 (104.06) <.01

1644.36 (122.02) <.01

b

Var (Level)

10.64 (0.82) <.01

9.06 (0.73) <.01

6.39 (1.23) <.01

5.80 (1.38) <.01

b

Var (Slope)

0.10 (0.03) <.01

0.10 (0.03) <.01

0.05 (0.04) .16

0.06 (0.05) .21

b

Var (Residual)

2.69 (0.13) <.01

2.69 (0.13) <.01

2.39 (0.22) <.01

2.39 (0.24) <.01

a

Covar (Level, Slope)

-565.27 (163.30) <.01

-552.12 (169.75) <.01

-302.37 (132.32) .02

-327.77 (157.85) .04

b

Covar (Level, Slope)

-0.37 (0.16) .02

-0.30 (0.14) .04

0.02 (0.15) .89

0.03 (0.18) .86

Correlation of Levels

0.015

-0.0051

-0.099

-0.172

Correlation of Slopes

0.305

0.2791

-0.513

-0.422

Correlation of Residuals

0.010

0.0092

0.070

0.068

N

595

595

150

150

occasions

8

8

8

7

parameters

21

25

29

41

LL

-7,635

-7,596

-3,870

-3,766

AIC

15,312

15,241

7,797

7,614

BIC

15,404

15,351

7,884

7,737

## fas

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

process

label

aehplus

ab

Covar (Levels)

29.54 (106.47) .78

ab

Covar (Slopes)

-2.18 (3.08) .48

ab

Covar (Residuals)

1.28 (24.00) .96

er

Corr (Levels)

0.04 (0.15) .78

er

Corr (Slopes)

-0.52 (0.84) .54

er

Corr (Residuals)

0.01 (0.12) .96

a

Level

343.58 (24.89) <.01

a

Slope

-28.26 (7.60) <.01

a

Level \* age

-4.27 (1.92) .03

a

Level \* education

-1.82 (2.71) .50

a

Level \* height

0.42 (1.33) .76

a

Level \* smoking

-0.92 (16.73) .96

a

Level \* cardio

-22.96 (25.21) .36

a

Level \* diabetes

-25.73 (26.01) .32

a

Slope \* age

0.18 (0.54) .73

a

Slope \* education

0.52 (0.81) .52

a

Slope \* height

0.62 (0.31) .04

a

Slope \* smoking

2.19 (3.87) .57

a

Slope \* cardio

3.28 (8.14) .69

a

Slope \* diabetes

-0.60 (8.78) .95

b

Level

30.06 (3.79) <.01

b

Slope

0.60 (0.78) .44

b

Level \* age

-0.31 (0.27) .25

b

Level \* education

1.24 (0.40) <.01

b

Level \* height

-0.13 (0.19) .50

b

Level \* smoking

2.97 (1.70) .08

b

Level \* cardio

-1.98 (3.76) .60

b

Level \* diabetes

-6.79 (2.89) .02

b

Slope \* age

-0.08 (0.04) .06

b

Slope \* education

0.04 (0.08) .64

b

Slope \* height

0.01 (0.02) .80

b

Slope \* smoking

-0.10 (0.40) .81

b

Slope \* cardio

0.05 (0.67) .94

b

Slope \* diabetes

0.34 (0.62) .58

a

Var (Level)

4694.15 (1112.43) <.01

a

Var (Slope)

57.15 (40.44) .16

a

Var (Residual)

1641.68 (91.23) <.01

b

Var (Level)

104.84 (23.99) <.01

b

Var (Slope)

0.31 (0.51) .54

b

Var (Residual)

25.13 (2.10) <.01

a

Covar (Level, Slope)

-333.56 (170.01) .05

b

Covar (Level, Slope)

1.46 (2.93) .62

Correlation of Levels

0.0421

Correlation of Slopes

-0.5167

Correlation of Residuals

0.0063

N

150

occasions

7

parameters

41

LL

-4,528

AIC

9,139

BIC

9,262

## logic\_tot

Gender = *female*; Process (a) = *pef*; Process (b) = *logic\_tot*

process

label

aehplus

ab

Covar (Levels)

81.32 (54.69) .14

ab

Covar (Slopes)

0.53 (2.48) .83

ab

Covar (Residuals)

17.14 (16.31) .29

er

Corr (Levels)

0.25 (0.16) .12

er

Corr (Slopes)

0.20 (0.94) .83

er

Corr (Residuals)

0.11 (0.10) .29

a

Level

341.08 (25.69) <.01

a

Slope

-26.25 (7.30) <.01

a

Level \* age

-4.25 (1.81) .02

a

Level \* education

-1.77 (2.82) .53

a

Level \* height

0.40 (1.20) .74

a

Level \* smoking

-0.50 (13.62) .97

a

Level \* cardio

-20.77 (33.81) .54

a

Level \* diabetes

-25.45 (28.04) .36

a

Slope \* age

0.15 (0.53) .78

a

Slope \* education

0.48 (0.90) .59

a

Slope \* height

0.61 (0.29) .03

a

Slope \* smoking

1.77 (3.35) .60

a

Slope \* cardio

1.94 (13.93) .89

a

Slope \* diabetes

-0.90 (9.06) .92

b

Level

18.13 (2.35) <.01

b

Slope

0.01 (0.46) .99

b

Level \* age

-0.13 (0.14) .36

b

Level \* education

0.74 (0.23) <.01

b

Level \* height

0.10 (0.10) .31

b

Level \* smoking

0.51 (1.21) .67

b

Level \* cardio

0.44 (2.94) .88

b

Level \* diabetes

-1.30 (2.29) .57

b

Slope \* age

-0.01 (0.03) .69

b

Slope \* education

-0.00 (0.05) .98

b

Slope \* height

-0.01 (0.02) .61

b

Slope \* smoking

0.02 (0.33) .95

b

Slope \* cardio

0.20 (0.90) .82

b

Slope \* diabetes

-0.02 (0.42) .96

a

Var (Level)

4740.04 (1119.15) <.01

a

Var (Slope)

63.25 (44.38) .15

a

Var (Residual)

1643.43 (100.58) <.01

b

Var (Level)

22.45 (5.18) <.01

b

Var (Slope)

0.11 (0.20) .58

b

Var (Residual)

14.44 (1.31) <.01

a

Covar (Level, Slope)

-363.80 (181.81) .04

b

Covar (Level, Slope)

0.57 (0.94) .54

Correlation of Levels

0.25

Correlation of Slopes

0.20

Correlation of Residuals

0.11

N

150

occasions

7

parameters

41

LL

-4,277

AIC

8,636

BIC

8,759

## mmse

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

process

label

aehplus

ab

Covar (Levels)

20.91 (12.09) .08

ab

Covar (Slopes)

0.11 (0.49) .82

ab

Covar (Residuals)

-0.07 (3.23) .98

er

Corr (Levels)

0.31 (0.16) .05

er

Corr (Slopes)

0.28 (1.27) .83

er

Corr (Residuals)

-0.00 (0.11) .98

a

Level

342.91 (27.58) <.01

a

Slope

-27.53 (8.51) <.01

a

Level \* age

-4.29 (1.87) .02

a

Level \* education

-1.87 (2.76) .50

a

Level \* height

0.40 (1.20) .73

a

Level \* smoking

-0.48 (13.74) .97

a

Level \* cardio

-22.51 (24.46) .36

a

Level \* diabetes

-25.80 (27.88) .35

a

Slope \* age

0.15 (0.50) .77

a

Slope \* education

0.57 (0.96) .55

a

Slope \* height

0.61 (0.31) .05

a

Slope \* smoking

1.90 (3.18) .55

a

Slope \* cardio

3.48 (10.03) .73

a

Slope \* diabetes

-0.63 (9.50) .95

b

Level

26.06 (0.36) <.01

b

Slope

0.06 (0.09) .51

b

Level \* age

-0.01 (0.03) .85

b

Level \* education

0.09 (0.04) .03

b

Level \* height

0.01 (0.02) .56

b

Level \* smoking

0.24 (0.26) .37

b

Level \* cardio

-0.12 (0.25) .63

b

Level \* diabetes

-0.14 (0.35) .68

b

Slope \* age

-0.01 (0.00) .27

b

Slope \* education

0.00 (0.01) .82

b

Slope \* height

-0.00 (0.00) .41

b

Slope \* smoking

-0.02 (0.06) .79

b

Slope \* cardio

-0.03 (0.06) .67

b

Slope \* diabetes

0.00 (0.07) .95

a

Var (Level)

4730.52 (1018.57) <.01

a

Var (Slope)

59.69 (36.71) .10

a

Var (Residual)

1642.49 (83.24) <.01

b

Var (Level)

0.97 (0.25) <.01

b

Var (Slope)

0.00 (0.01) .71

b

Var (Residual)

0.56 (0.03) <.01

a

Covar (Level, Slope)

-348.69 (157.32) .03

b

Covar (Level, Slope)

0.00 (0.03) .98

Correlation of Levels

0.3084

Correlation of Slopes

0.2576

Correlation of Residuals

-0.0024

N

150

occasions

7

parameters

41

LL

-3,301

AIC

6,685

BIC

6,808

## symbol

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

process

label

a

ae

aeh

aehplus

full

ab

Covar (Levels)

331.92 (108.27) <.01

342.04 (106.57) <.01

262.59 (126.47) .04

201.39 (111.31) .07

213.34 (123.52) .08

ab

Covar (Slopes)

10.97 (3.34) <.01

12.46 (4.36) <.01

3.53 (4.39) .42

1.93 (2.81) .49

2.56 (4.92) .60

ab

Covar (Residuals)

-1.96 (15.87) .90

1.80 (16.40) .91

-2.03 (23.02) .93

2.81 (22.77) .90

-2.07 (24.58) .93

er

Corr (Levels)

---

---

---

0.28 (0.14) .04

---

er

Corr (Slopes)

---

---

---

0.51 (0.92) .58

---

er

Corr (Residuals)

---

---

---

0.01 (0.10) .90

---

a

Level

311.44 (13.06) <.01

293.53 (20.69) <.01

327.85 (24.34) <.01

342.45 (25.32) <.01

333.18 (26.59) <.01

a

Slope

-11.58 (2.77) <.01

-5.54 (5.62) .32

-23.55 (7.43) <.01

-27.33 (6.77) <.01

-23.53 (9.30) .01

a

Level \* age

-4.29 (1.33) <.01

-3.86 (1.41) .01

-4.09 (1.78) .02

-4.23 (1.80) .02

-4.27 (1.83) .02

a

Level \* education

---

1.19 (2.35) .61

-1.15 (2.70) .67

-1.85 (2.72) .50

-1.61 (2.76) .56

a

Level \* height

---

---

0.37 (1.15) .75

0.42 (1.22) .73

0.13 (1.22) .91

a

Level \* smoking

---

---

---

-0.39 (15.10) .98

0.00 (15.99) .99

a

Level \* cardio

---

---

---

-22.98 (28.80) .42

-24.20 (31.60) .44

a

Level \* diabetes

---

---

---

-25.69 (25.50) .31

-24.36 (26.24) .35

a

Slope \* age

-0.23 (0.34) .51

-0.40 (0.41) .34

0.11 (0.56) .84

0.15 (0.53) .78

0.14 (0.62) .83

a

Slope \* education

---

-0.42 (0.73) .56

0.29 (0.91) .75

0.54 (0.81) .50

0.41 (0.98) .68

a

Slope \* height

---

---

0.64 (0.40) .11

0.61 (0.32) .05

0.73 (0.41) .08

a

Slope \* smoking

---

---

---

1.89 (3.69) .61

1.75 (5.38) .74

a

Slope \* cardio

---

---

---

3.40 (10.31) .74

3.07 (11.47) .79

a

Slope \* diabetes

---

---

---

-0.90 (8.61) .92

-2.07 (9.40) .83

b

Level

45.33 (1.24) <.01

32.42 (1.63) <.01

39.06 (3.07) <.01

41.02 (3.20) <.01

40.57 (3.68) <.01

b

Slope

0.54 (0.21) .01

1.16 (0.44) .01

0.56 (0.59) .34

0.38 (0.59) .52

0.62 (0.78) .42

b

Level \* age

-0.59 (0.13) <.01

-0.57 (0.11) <.01

-0.35 (0.27) .20

-0.42 (0.26) .11

-0.38 (0.28) .17

b

Level \* education

---

2.02 (0.17) <.01

1.89 (0.35) <.01

1.79 (0.35) <.01

1.79 (0.38) <.01

b

Level \* height

---

---

0.08 (0.18) .66

0.05 (0.18) .77

0.05 (0.19) .78

b

Level \* smoking

---

---

---

2.33 (2.11) .27

2.19 (2.01) .27

b

Level \* cardio

---

---

---

-5.00 (6.64) .45

-4.96 (8.15) .54

b

Level \* diabetes

---

---

---

-6.98 (2.60) .01

-6.75 (2.82) .02

b

Slope \* age

-0.06 (0.02) .02

-0.04 (0.03) .09

-0.06 (0.04) .08

-0.05 (0.03) .15

-0.06 (0.04) .12

b

Slope \* education

---

-0.09 (0.05) .06

-0.06 (0.07) .40

-0.06 (0.08) .42

-0.06 (0.09) .48

b

Slope \* height

---

---

0.00 (0.03) .90

0.01 (0.03) .84

0.00 (0.04) .91

b

Slope \* smoking

---

---

---

0.04 (0.42) .92

0.09 (0.48) .85

b

Slope \* cardio

---

---

---

0.03 (0.99) .97

0.00 (1.37) .99

b

Slope \* diabetes

---

---

---

-0.14 (0.45) .75

-0.24 (0.56) .66

a

Var (Level)

5314.26 (886.62) <.01

5924.42 (1072.31) <.01

4906.13 (1072.06) <.01

4717.27 (1064.59) <.01

4692.97 (1099.11) <.01

a

Var (Slope)

152.53 (39.36) <.01

257.04 (66.08) <.01

117.67 (64.73) .07

60.58 (40.98) .14

102.83 (69.68) .14

a

Var (Residual)

1665.82 (53.18) <.01

1539.24 (60.16) <.01

1618.46 (83.00) <.01

1638.82 (92.29) <.01

1617.21 (98.54) <.01

b

Var (Level)

189.81 (14.19) <.01

143.96 (11.26) <.01

127.61 (23.26) <.01

105.78 (18.62) <.01

114.18 (21.13) <.01

b

Var (Slope)

1.31 (0.28) <.01

1.77 (0.39) <.01

0.36 (0.50) .47

0.24 (0.43) .59

0.45 (0.63) .47

b

Var (Residual)

31.68 (1.23) <.01

30.30 (1.32) <.01

28.75 (2.01) <.01

28.79 (2.17) <.01

28.50 (2.24) <.01

a

Covar (Level, Slope)

-520.59 (153.38) <.01

-811.76 (241.28) <.01

-416.41 (219.35) .06

-346.09 (168.50) .04

-385.95 (225.58) .09

b

Covar (Level, Slope)

-6.08 (2.24) .01

-5.11 (2.05) .01

-1.49 (3.01) .62

-0.06 (2.60) .98

-2.31 (3.06) .45

Correlation of Levels

0.3305

0.3704

0.3319

0.285

0.2914

Correlation of Slopes

0.7770

0.5831

0.5397

0.511

0.3750

Correlation of Residuals

-0.0085

0.0084

-0.0094

0.013

-0.0096

N

592

592

150

150

150

occasions

9

7

6

7

6

parameters

21

25

29

41

45

LL

-10,104

-9,446

-4,340

-4,554

-4,326

AIC

20,249

18,943

8,738

9,190

8,742

BIC

20,341

19,052

8,826

9,313

8,878

## trailsb

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

process

label

a

ae

aeh

aehplus

full

ab

Covar (Levels)

-1437.76 (540.87) .01

-1308.71 (509.10) .01

-1005.15 (664.43) .13

-818.94 (707.87) .25

-731.95 (659.29) .27

ab

Covar (Slopes)

-11.72 (15.69) .46

-11.07 (16.06) .49

-4.41 (27.72) .87

-5.32 (37.39) .89

-0.25 (28.09) .99

ab

Covar (Residuals)

17.39 (148.22) .91

13.54 (154.65) .93

-80.60 (224.45) .72

-68.68 (221.61) .76

-80.64 (247.59) .74

er

Corr (Levels)

---

---

---

-0.25 (0.20) .20

---

er

Corr (Slopes)

---

---

---

-0.23 (1.59) .89

---

er

Corr (Residuals)

---

---

---

-0.04 (0.14) .76

---

a

Level

319.62 (13.00) <.01

313.50 (20.64) <.01

332.19 (25.63) <.01

340.94 (26.56) <.01

338.48 (26.86) <.01

a

Slope

-14.42 (2.89) <.01

-11.07 (4.82) .02

-25.89 (6.46) <.01

-26.21 (7.99) <.01

-26.65 (7.66) <.01

a

Level \* age

-4.57 (1.31) <.01

-4.50 (1.31) <.01

-4.17 (1.83) .02

-4.19 (2.02) .04

-4.35 (1.93) .02

a

Level \* education

---

1.07 (2.21) .63

-1.56 (2.65) .56

-1.72 (2.70) .52

-2.06 (2.57) .42

a

Level \* height

---

---

0.60 (1.18) .61

0.46 (1.27) .72

0.35 (1.24) .78

a

Level \* smoking

---

---

---

-0.21 (15.50) .99

-0.14 (16.04) .99

a

Level \* cardio

---

---

---

-23.02 (29.25) .43

-22.83 (30.59) .46

a

Level \* diabetes

---

---

---

-26.52 (24.59) .28

-28.03 (25.56) .27

a

Slope \* age

-0.13 (0.33) .69

-0.15 (0.33) .64

0.14 (0.44) .76

0.11 (0.66) .87

0.15 (0.53) .77

a

Slope \* education

---

-0.54 (0.58) .35

0.54 (0.70) .44

0.45 (0.90) .62

0.70 (0.75) .35

a

Slope \* height

---

---

0.51 (0.27) .05

0.57 (0.34) .10

0.61 (0.28) .03

a

Slope \* smoking

---

---

---

1.77 (4.27) .68

1.88 (4.02) .64

a

Slope \* cardio

---

---

---

3.38 (9.52) .72

2.44 (9.21) .79

a

Slope \* diabetes

---

---

---

-0.32 (8.49) .97

-0.06 (9.22) .99

b

Level

125.49 (7.24) <.01

175.12 (7.45) <.01

171.28 (18.58) <.01

166.61 (22.47) <.01

172.13 (21.87) <.01

b

Slope

0.80 (1.30) .54

-0.55 (2.05) .79

2.42 (5.06) .63

1.23 (6.88) .86

2.73 (6.22) .66

b

Level \* age

2.50 (0.64) <.01

2.31 (0.58) <.01

1.63 (1.38) .24

1.95 (1.50) .19

2.06 (1.48) .16

b

Level \* education

---

-7.73 (0.90) <.01

-7.82 (2.03) <.01

-7.85 (2.29) <.01

-7.32 (2.27) <.01

b

Level \* height

---

---

-0.04 (0.78) .96

0.23 (0.89) .80

0.27 (0.92) .76

b

Level \* smoking

---

---

---

-10.65 (10.53) .31

-11.97 (9.91) .23

b

Level \* cardio

---

---

---

25.78 (18.22) .16

29.70 (21.00) .16

b

Level \* diabetes

---

---

---

34.98 (20.40) .09

33.33 (17.81) .06

b

Slope \* age

0.29 (0.14) .04

0.30 (0.14) .04

0.21 (0.27) .43

0.14 (0.39) .73

0.19 (0.34) .58

b

Slope \* education

---

0.20 (0.21) .33

-0.05 (0.57) .93

0.18 (0.68) .79

-0.11 (0.61) .86

b

Slope \* height

---

---

0.02 (0.18) .89

-0.06 (0.24) .82

-0.01 (0.22) .97

b

Slope \* smoking

---

---

---

-0.63 (3.38) .85

-0.31 (2.98) .92

b

Slope \* cardio

---

---

---

-1.40 (5.83) .81

-2.00 (6.44) .76

b

Slope \* diabetes

---

---

---

0.87 (6.36) .89

2.66 (5.06) .60

a

Var (Level)

5503.46 (922.85) <.01

5447.84 (926.92) <.01

4821.22 (1077.52) <.01

4770.99 (1064.73) <.01

4624.91 (1121.08) <.01

a

Var (Slope)

130.76 (35.96) <.01

124.33 (35.54) <.01

48.62 (27.63) .08

66.24 (44.04) .13

39.51 (33.94) .24

a

Var (Residual)

1683.17 (52.72) <.01

1681.28 (52.10) <.01

1690.11 (79.14) <.01

1629.70 (85.33) <.01

1684.30 (89.20) <.01

b

Var (Level)

3389.97 (471.25) <.01

2698.95 (377.73) <.01

2724.82 (689.38) <.01

2288.23 (751.49) <.01

2258.31 (713.54) <.01

b

Var (Slope)

6.98 (9.28) .45

7.33 (9.45) .44

7.46 (16.87) .66

8.22 (27.63) .77

5.73 (18.88) .76

b

Var (Residual)

1740.06 (48.32) <.01

1740.02 (48.04) <.01

1478.80 (71.16) <.01

1484.54 (82.45) <.01

1475.00 (76.52) <.01

a

Covar (Level, Slope)

-518.71 (152.31) <.01

-491.83 (158.00) <.01

-324.32 (139.94) .02

-369.10 (186.23) .05

-305.61 (167.55) .07

b

Covar (Level, Slope)

32.29 (68.53) .64

45.66 (66.49) .49

49.10 (103.59) .64

54.37 (152.31) .72

46.60 (133.62) .73

Correlation of Levels

-0.33

-0.3413

-0.277

-0.248

-0.226

Correlation of Slopes

-0.39

-0.3667

-0.231

-0.228

-0.016

Correlation of Residuals

0.01

0.0079

-0.051

-0.044

-0.051

N

580

580

150

150

150

occasions

9

9

8

7

8

parameters

21

25

29

41

45

LL

-13,187

-13,142

-5,891

-5,694

-5,875

AIC

26,416

26,333

11,840

11,470

11,840

BIC

26,507

26,442

11,928

11,593

11,975

## Summary

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

Computed correlations:

label

process\_b

a

ae

aeh

aehplus

full

Correlation of Levels

block

.

0.19

0.21

0.19

0.19

Correlation of Levels

bnt

.

.

.

0.33

.

Correlation of Levels

categories

.

.

.

0.16

.

Correlation of Levels

digit\_tot

0.01

-0.01

-0.10

-0.17

.

Correlation of Levels

fas

.

.

.

0.04

.

Correlation of Levels

logic\_tot

.

.

.

0.25

.

Correlation of Levels

mmse

.

.

.

0.31

.

Correlation of Levels

symbol

0.33

0.37

0.33

0.29

0.29

Correlation of Levels

trailsb

-0.33

-0.34

-0.28

-0.25

-0.23

label

process\_b

a

ae

aeh

aehplus

full

Correlation of Slopes

block

.

0.67

0.08

-0.11

0.19

Correlation of Slopes

bnt

.

.

.

-0.31

.

Correlation of Slopes

categories

.

.

.

-0.16

.

Correlation of Slopes

digit\_tot

0.31

0.28

-0.51

-0.42

.

Correlation of Slopes

fas

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-0.52

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Correlation of Slopes

logic\_tot

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0.20

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Correlation of Slopes

mmse

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0.26

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Correlation of Slopes

symbol

0.78

0.58

0.54

0.51

0.37

Correlation of Slopes

trailsb

-0.39

-0.37

-0.23

-0.23

-0.02

label

process\_b

a

ae

aeh

aehplus

full

Correlation of Residuals

block

.

-0.00

-0.01

0.02

0.00

Correlation of Residuals

bnt

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0.03

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Correlation of Residuals

categories

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-0.06

.

Correlation of Residuals

digit\_tot

0.01

0.01

0.07

0.07

.

Correlation of Residuals

fas

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0.01

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Correlation of Residuals

logic\_tot

.

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0.11

.

Correlation of Residuals

mmse

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-0.00

.

Correlation of Residuals

symbol

-0.01

0.01

-0.01

0.01

-0.01

Correlation of Residuals

trailsb

0.01

0.01

-0.05

-0.04

-0.05

P-values for corresponding covariances:

label

process\_b

a

ae

aeh

aehplus

full

Covariance of Levels

block

.

0.05

0.04

0.23

0.26

Covariance of Levels

bnt

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0.09

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Covariance of Levels

categories

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0.27

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Covariance of Levels

digit\_tot

0.91

0.97

0.50

0.26

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Covariance of Levels

fas

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0.78

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Covariance of Levels

logic\_tot

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0.14

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Covariance of Levels

mmse

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.

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0.08

.

Covariance of Levels

symbol

0.00

0.00

0.04

0.07

0.08

Covariance of Levels

trailsb

0.01

0.01

0.13

0.25

0.27

label

process\_b

a

ae

aeh

aehplus

full

Covariance of Slopes

block

.

0.00

0.85

0.91

0.84

Covariance of Slopes

bnt

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0.69

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Covariance of Slopes

categories

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0.76

.

Covariance of Slopes

digit\_tot

0.25

0.30

0.40

0.50

.

Covariance of Slopes

fas

.

.

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0.48

.

Covariance of Slopes

logic\_tot

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0.83

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Covariance of Slopes

mmse

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.

0.82

.

Covariance of Slopes

symbol

0.00

0.00

0.42

0.49

0.60

Covariance of Slopes

trailsb

0.46

0.49

0.87

0.89

0.99

label

process\_b

a

ae

aeh

aehplus

full

Covariance of Residuals

block

.

0.97

0.90

0.82

0.98

Covariance of Residuals

bnt

.

.

.

0.82

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Covariance of Residuals

categories

.

.

.

0.49

.

Covariance of Residuals

digit\_tot

0.86

0.88

0.50

0.55

.

Covariance of Residuals

fas

.

.

.

0.96

.

Covariance of Residuals

logic\_tot

.

.

.

0.29

.

Covariance of Residuals

mmse

.

.

.

0.98

.

Covariance of Residuals

symbol

0.90

0.91

0.93

0.90

0.93

Covariance of Residuals

trailsb

0.91

0.93

0.72

0.76

0.74

# male

Gender = *male*; Model type: *aehplus*; Process (a) = *pef*; Process (b): *block*, *bnt*, *categories*, *digit\_tot*, *fas*, *logic\_tot*, *mmse*, *symbol*, *trailsb*

process

label

block

bnt

categories

fas

logic\_tot

mmse

symbol

mean(sd)

ab

Covar (Levels)

-113.69 (321.74) .72

-15.17 (69.84) .83

-152.56 (325.26) .64

-84.00 (457.25) .85

-120.30 (194.44) .54

3.42 (39.86) .93

6.90 (344.49) .98

---

ab

Covar (Slopes)

0.31 (15.23) .98

-0.34 (3.37) .92

-1.41 (14.54) .92

-6.28 (19.83) .75

5.46 (7.82) .48

1.42 (2.61) .59

1.26 (13.53) .93

---

ab

Covar (Residuals)

6.46 (46.91) .89

6.53 (19.29) .73

14.05 (48.44) .77

-1.30 (74.41) .99

17.12 (36.61) .64

6.43 (8.88) .47

-23.96 (53.19) .65

---

er

Corr (Levels)

-0.15 (0.44) .72

-0.10 (0.46) .83

-0.17 (0.35) .63

-0.07 (0.40) .85

-0.20 (0.34) .56

0.05 (0.62) .93

0.01 (0.36) .98

---

er

Corr (Slopes)

0.12 (6.25) .98

-0.16 (1.57) .92

-0.11 (1.11) .92

-0.66 (1.85) .72

0.67 (1.07) .53

0.90 (1.11) .42

0.08 (0.85) .92

---

er

Corr (Residuals)

0.02 (0.16) .89

0.09 (0.26) .74

0.05 (0.18) .77

-0.00 (0.25) .99

0.08 (0.17) .64

0.13 (0.19) .47

-0.08 (0.18) .66

---

a

Level

460.36 (99.06) <.01

451.32 (104.56) <.01

450.57 (123.22) <.01

448.83 (103.35) <.01

456.86 (98.09) <.01

452.80 (113.83) <.01

457.18 (97.64) <.01

453.99(4.20)

a

Slope

-36.40 (27.45) .18

-31.11 (27.68) .26

-31.45 (30.40) .30

-30.09 (32.83) .36

-34.53 (35.23) .33

-33.81 (30.08) .26

-34.05 (26.54) .20

-33.06(2.24)

a

Level \* age

-6.37 (6.29) .31

-5.23 (5.34) .33

-5.69 (6.36) .37

-5.25 (6.02) .38

-5.34 (6.24) .39

-5.17 (6.51) .43

-5.51 (5.67) .33

-5.51(0.42)

a

Level \* education

5.31 (9.61) .58

5.08 (9.56) .59

5.74 (11.10) .60

5.25 (9.24) .57

4.78 (9.01) .60

5.14 (10.16) .61

4.83 (8.19) .56

5.16(0.32)

a

Level \* height

3.39 (4.74) .47

2.76 (4.27) .52

2.50 (4.13) .55

2.68 (3.96) .50

2.37 (3.88) .54

2.46 (3.41) .47

2.54 (3.58) .48

2.67(0.34)

a

Level \* smoking

-35.37 (73.79) .63

-33.61 (74.75) .65

-32.54 (70.17) .64

-31.45 (61.98) .61

-36.01 (70.96) .61

-33.55 (80.02) .68

-38.90 (76.04) .61

-34.49(2.49)

a

Level \* cardio

-20.22 (72.78) .78

-23.03 (69.47) .74

-23.81 (85.55) .78

-23.77 (70.83) .74

-22.74 (72.43) .75

-27.24 (80.99) .74

-20.74 (72.43) .78

-23.08(2.31)

a

Level \* diabetes

-17.74 (72.05) .80

-15.09 (64.83) .82

-15.04 (54.75) .78

-15.79 (55.07) .77

-14.61 (54.25) .79

-15.10 (65.94) .82

-16.69 (51.98) .75

-15.72(1.12)

a

Slope \* age

1.07 (1.62) .51

0.36 (1.72) .84

0.71 (1.88) .70

0.44 (1.91) .82

0.54 (1.88) .78

0.49 (1.76) .78

0.57 (1.70) .74

0.60(0.24)

a

Slope \* education

-0.28 (2.50) .91

-0.20 (2.23) .93

-0.59 (2.61) .82

-0.34 (2.49) .89

-0.07 (2.57) .98

-0.23 (2.64) .93

-0.13 (2.18) .95

-0.26(0.17)

a

Slope \* height

-0.06 (1.53) .97

0.32 (1.45) .82

0.48 (1.42) .73

0.40 (1.46) .78

0.62 (1.43) .66

0.54 (1.16) .64

0.55 (1.15) .64

0.41(0.23)

a

Slope \* smoking

8.55 (13.40) .52

8.07 (14.12) .57

7.94 (13.58) .56

6.80 (15.82) .67

9.02 (17.20) .60

8.16 (14.71) .58

10.46 (17.99) .56

8.43(1.12)

a

Slope \* cardio

-4.58 (16.59) .78

-0.81 (17.68) .96

-0.72 (15.06) .96

-0.26 (17.75) .99

-1.98 (21.64) .93

1.41 (17.95) .94

-1.88 (24.54) .94

-1.26(1.85)

a

Slope \* diabetes

1.56 (19.14) .94

-0.25 (22.35) .99

-0.36 (17.61) .98

0.05 (15.55) .99

-0.22 (18.16) .99

-0.09 (19.09) .99

1.36 (15.23) .93

0.29(0.81)

b

Level

23.86 (7.73) <.01

11.05 (1.68) <.01

29.14 (8.42) <.01

25.03 (7.40) <.01

15.38 (5.50) <.01

26.59 (0.70) <.01

40.48 (9.13) <.01

---

b

Slope

1.57 (1.75) .37

0.23 (0.39) .56

1.06 (1.70) .53

1.33 (1.56) .40

1.77 (1.15) .12

-0.02 (0.31) .95

0.66 (2.08) .75

---

b

Level \* age

0.24 (0.44) .59

0.03 (0.09) .71

-0.16 (0.45) .73

-0.04 (0.46) .93

-0.08 (0.30) .78

-0.00 (0.04) .97

-0.18 (0.38) .64

---

b

Level \* education

0.63 (0.50) .21

0.10 (0.12) .38

1.14 (0.66) .08

1.62 (0.52) <.01

0.86 (0.33) .01

0.07 (0.06) .24

1.32 (0.81) .10

---

b

Level \* height

0.06 (0.19) .76

0.00 (0.06) .95

-0.10 (0.24) .68

-0.36 (0.30) .23

0.09 (0.17) .57

0.00 (0.03) .98

0.10 (0.23) .67

---

b

Level \* smoking

-4.09 (3.46) .24

0.99 (0.95) .30

3.53 (5.66) .53

1.82 (4.25) .67

-0.08 (3.31) .98

-0.22 (0.42) .60

0.42 (5.41) .94

---

b

Level \* cardio

0.28 (3.57) .94

-0.36 (1.09) .74

-0.66 (7.67) .93

0.66 (7.36) .93

1.25 (2.63) .63

-0.03 (0.56) .95

-4.72 (5.51) .39

---

b

Level \* diabetes

-3.43 (3.99) .39

-0.04 (0.91) .96

-0.75 (3.69) .84

-5.58 (4.16) .18

0.86 (3.04) .78

-0.04 (0.45) .92

-4.19 (4.86) .39

---

b

Slope \* age

-0.08 (0.10) .39

-0.02 (0.03) .43

-0.06 (0.08) .47

0.00 (0.07) .99

-0.09 (0.08) .23

-0.00 (0.02) .84

-0.02 (0.08) .82

---

b

Slope \* education

-0.11 (0.11) .33

-0.01 (0.02) .71

-0.15 (0.14) .29

-0.15 (0.16) .34

-0.13 (0.07) .08

-0.00 (0.02) .90

-0.17 (0.18) .34

---

b

Slope \* height

-0.04 (0.05) .36

0.01 (0.02) .76

-0.02 (0.07) .78

0.01 (0.07) .83

-0.02 (0.04) .64

-0.00 (0.01) .93

0.01 (0.07) .88

---

b

Slope \* smoking

0.32 (0.82) .70

-0.23 (0.19) .22

-0.37 (1.10) .73

0.08 (0.91) .93

-0.07 (0.72) .92

0.07 (0.14) .60

-0.08 (0.98) .93

---

b

Slope \* cardio

0.24 (1.40) .86

0.04 (0.39) .92

0.19 (1.43) .89

-0.47 (1.34) .72

-0.49 (1.10) .66

0.02 (0.19) .90

0.57 (1.62) .72

---

b

Slope \* diabetes

-0.56 (1.01) .58

0.06 (0.28) .82

0.16 (0.93) .86

-0.26 (0.79) .74

0.82 (0.88) .35

0.01 (0.17) .94

0.19 (1.05) .86

---

a

Var (Level)

13435.43 (5867.31) .02

12826.85 (5567.93) .02

12987.75 (5824.20) .03

13100.68 (6328.99) .04

12861.00 (7065.11) .07

13498.16 (7104.04) .06

13294.09 (5899.23) .02

13143.42(270.75)

a

Var (Slope)

186.34 (228.03) .41

186.00 (272.20) .49

180.45 (291.64) .54

200.08 (318.09) .53

176.62 (314.29) .57

222.00 (310.45) .47

217.96 (300.61) .47

195.64(18.19)

a

Var (Residual)

3592.55 (504.56) <.01

3441.14 (698.92) <.01

3468.52 (625.64) <.01

3410.14 (480.58) <.01

3460.22 (747.13) <.01

3440.49 (552.54) <.01

3478.41 (692.94) <.01

3470.21(58.42)

b

Var (Level)

40.24 (21.78) .06

1.95 (1.35) .15

64.45 (21.43) <.01

95.09 (39.59) .02

28.36 (13.93) .04

0.30 (0.42) .48

69.21 (30.38) .02

---

b

Var (Slope)

0.03 (0.68) .96

0.03 (0.05) .63

0.87 (0.95) .35

0.45 (0.84) .59

0.38 (0.55) .50

0.01 (0.03) .72

1.12 (0.96) .24

---

b

Var (Residual)

24.10 (2.87) <.01

1.60 (0.24) <.01

20.44 (4.21) <.01

25.75 (3.79) <.01

13.52 (2.34) <.01

0.67 (0.13) <.01

25.64 (4.23) <.01

---

a

Covar (Level, Slope)

-1102.79 (1117.31) .32

-942.73 (1018.78) .35

-969.01 (954.07) .31

-1010.84 (1177.12) .39

-918.32 (1230.92) .46

-1146.23 (1383.22) .41

-1123.34 (1211.07) .35

-1030.46(92.82)

b

Covar (Level, Slope)

-0.25 (3.45) .94

0.11 (0.20) .59

-5.52 (3.64) .13

0.56 (6.82) .93

-1.25 (2.61) .63

0.03 (0.11) .80

0.66 (4.91) .89

---

Correlation of Levels

-0.155

-0.096

-0.167

-0.0753

-0.199

0.054

0.0072

-0.09(0.09)

Correlation of Slopes

0.125

-0.155

-0.112

-0.6585

0.671

0.906

0.0805

0.12(0.53)

Correlation of Residuals

0.022

0.088

0.053

-0.0044

0.079

0.134

-0.0802

0.04(0.07)

N

72

72

72

72

72

72

72

72.00(0.00)

occasions

7

7

7

7

7

7

7

7.00(0.00)

parameters

41

41

41

41

41

41

41

41.00(0.00)

LL

-2,459

-2,029

-2,448

-2,505

-2,375

-1,861

-2,504

-2,312(259)

AIC

5,000

4,139

4,978

5,093

4,833

3,805

5,090

4,705(517)

BIC

5,093

4,233

5,072

5,186

4,926

3,898

5,183

4,799(517)

## block

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

process

label

ae

aeh

aehplus

ab

Covar (Levels)

-122.43 (137.12) .37

-89.80 (125.58) .47

-113.69 (321.74) .72

ab

Covar (Slopes)

-0.17 (3.37) .96

-0.13 (18.94) .99

0.31 (15.23) .98

ab

Covar (Residuals)

7.05 (22.67) .76

28.00 (36.76) .45

6.46 (46.91) .89

er

Corr (Levels)

---

---

-0.15 (0.44) .72

er

Corr (Slopes)

---

---

0.12 (6.25) .98

er

Corr (Residuals)

---

---

0.02 (0.16) .89

a

Level

468.26 (40.46) <.01

412.91 (49.38) <.01

460.36 (99.06) <.01

a

Slope

-18.94 (8.62) .03

-29.25 (10.46) <.01

-36.40 (27.45) .18

a

Level \* age

-4.66 (2.91) .11

-5.16 (3.10) .10

-6.37 (6.29) .31

a

Level \* education

0.38 (4.09) .93

5.99 (4.49) .18

5.31 (9.61) .58

a

Level \* height

---

3.87 (2.76) .16

3.39 (4.74) .47

a

Level \* smoking

---

---

-35.37 (73.79) .63

a

Level \* cardio

---

---

-20.22 (72.78) .78

a

Level \* diabetes

---

---

-17.74 (72.05) .80

a

Slope \* age

-0.19 (0.61) .76

0.61 (0.79) .44

1.07 (1.62) .51

a

Slope \* education

-0.02 (1.00) .98

0.36 (1.10) .74

-0.28 (2.50) .91

a

Slope \* height

---

-0.64 (1.35) .63

-0.06 (1.53) .97

a

Slope \* smoking

---

---

8.55 (13.40) .52

a

Slope \* cardio

---

---

-4.58 (16.59) .78

a

Slope \* diabetes

---

---

1.56 (19.14) .94

b

Level

20.52 (1.03) <.01

19.31 (3.81) <.01

23.86 (7.73) <.01

b

Slope

0.90 (0.26) <.01

1.57 (1.53) .31

1.57 (1.75) .37

b

Level \* age

-0.02 (0.11) .88

0.31 (0.35) .38

0.24 (0.44) .59

b

Level \* education

0.01 (0.03) .86

0.73 (0.30) .02

0.63 (0.50) .21

b

Level \* height

---

0.01 (0.28) .97

0.06 (0.19) .76

b

Level \* smoking

---

---

-4.09 (3.46) .24

b

Level \* cardio

---

---

0.28 (3.57) .94

b

Level \* diabetes

---

---

-3.43 (3.99) .39

b

Slope \* age

-0.05 (0.02) <.01

-0.08 (0.17) .62

-0.08 (0.10) .39

b

Slope \* education

-0.00 (0.03) .97

-0.10 (0.12) .42

-0.11 (0.11) .33

b

Slope \* height

---

-0.04 (0.14) .81

-0.04 (0.05) .36

b

Slope \* smoking

---

---

0.32 (0.82) .70

b

Slope \* cardio

---

---

0.24 (1.40) .86

b

Slope \* diabetes

---

---

-0.56 (1.01) .58

a

Var (Level)

12369.76 (3034.59) <.01

12541.22 (3161.93) <.01

13435.43 (5867.31) .02

a

Var (Slope)

207.90 (118.40) .08

204.82 (213.03) .34

186.34 (228.03) .41

a

Var (Residual)

4750.71 (840.79) <.01

4397.04 (1166.62) <.01

3592.55 (504.56) <.01

b

Var (Level)

76.62 (7.95) <.01

46.25 (13.11) <.01

40.24 (21.78) .06

b

Var (Slope)

0.15 (0.15) .31

0.03 (7.94) .99

0.03 (0.68) .96

b

Var (Residual)

22.19 (1.50) <.01

23.78 (9.55) .01

24.10 (2.87) <.01

a

Covar (Level, Slope)

-767.90 (619.22) .21

-776.24 (651.36) .23

-1102.79 (1117.31) .32

b

Covar (Level, Slope)

-2.12 (1.19) .07

0.01 (12.80) .99

-0.25 (3.45) .94

Correlation of Levels

-0.126

-0.118

-0.155

Correlation of Slopes

-0.031

-0.052

0.125

Correlation of Residuals

0.022

0.087

0.022

N

350

72

72

occasions

9

8

7

parameters

25

29

41

LL

-5,823

-2,542

-2,459

AIC

11,697

5,143

5,000

BIC

11,793

5,209

5,093

## bnt

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

process

label

aehplus

ab

Covar (Levels)

-15.17 (69.84) .83

ab

Covar (Slopes)

-0.34 (3.37) .92

ab

Covar (Residuals)

6.53 (19.29) .73

er

Corr (Levels)

-0.10 (0.46) .83

er

Corr (Slopes)

-0.16 (1.57) .92

er

Corr (Residuals)

0.09 (0.26) .74

a

Level

451.32 (104.56) <.01

a

Slope

-31.11 (27.68) .26

a

Level \* age

-5.23 (5.34) .33

a

Level \* education

5.08 (9.56) .59

a

Level \* height

2.76 (4.27) .52

a

Level \* smoking

-33.61 (74.75) .65

a

Level \* cardio

-23.03 (69.47) .74

a

Level \* diabetes

-15.09 (64.83) .82

a

Slope \* age

0.36 (1.72) .84

a

Slope \* education

-0.20 (2.23) .93

a

Slope \* height

0.32 (1.45) .82

a

Slope \* smoking

8.07 (14.12) .57

a

Slope \* cardio

-0.81 (17.68) .96

a

Slope \* diabetes

-0.25 (22.35) .99

b

Level

11.05 (1.68) <.01

b

Slope

0.23 (0.39) .56

b

Level \* age

0.03 (0.09) .71

b

Level \* education

0.10 (0.12) .38

b

Level \* height

0.00 (0.06) .95

b

Level \* smoking

0.99 (0.95) .30

b

Level \* cardio

-0.36 (1.09) .74

b

Level \* diabetes

-0.04 (0.91) .96

b

Slope \* age

-0.02 (0.03) .43

b

Slope \* education

-0.01 (0.02) .71

b

Slope \* height

0.01 (0.02) .76

b

Slope \* smoking

-0.23 (0.19) .22

b

Slope \* cardio

0.04 (0.39) .92

b

Slope \* diabetes

0.06 (0.28) .82

a

Var (Level)

12826.85 (5567.93) .02

a

Var (Slope)

186.00 (272.20) .49

a

Var (Residual)

3441.14 (698.92) <.01

b

Var (Level)

1.95 (1.35) .15

b

Var (Slope)

0.03 (0.05) .63

b

Var (Residual)

1.60 (0.24) <.01

a

Covar (Level, Slope)

-942.73 (1018.78) .35

b

Covar (Level, Slope)

0.11 (0.20) .59

Correlation of Levels

-0.096

Correlation of Slopes

-0.155

Correlation of Residuals

0.088

N

72

occasions

7

parameters

41

LL

-2,029

AIC

4,139

BIC

4,233

## categories

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

process

label

aehplus

ab

Covar (Levels)

-152.56 (325.26) .64

ab

Covar (Slopes)

-1.41 (14.54) .92

ab

Covar (Residuals)

14.05 (48.44) .77

er

Corr (Levels)

-0.17 (0.35) .63

er

Corr (Slopes)

-0.11 (1.11) .92

er

Corr (Residuals)

0.05 (0.18) .77

a

Level

450.57 (123.22) <.01

a

Slope

-31.45 (30.40) .30

a

Level \* age

-5.69 (6.36) .37

a

Level \* education

5.74 (11.10) .60

a

Level \* height

2.50 (4.13) .55

a

Level \* smoking

-32.54 (70.17) .64

a

Level \* cardio

-23.81 (85.55) .78

a

Level \* diabetes

-15.04 (54.75) .78

a

Slope \* age

0.71 (1.88) .70

a

Slope \* education

-0.59 (2.61) .82

a

Slope \* height

0.48 (1.42) .73

a

Slope \* smoking

7.94 (13.58) .56

a

Slope \* cardio

-0.72 (15.06) .96

a

Slope \* diabetes

-0.36 (17.61) .98

b

Level

29.14 (8.42) <.01

b

Slope

1.06 (1.70) .53

b

Level \* age

-0.16 (0.45) .73

b

Level \* education

1.14 (0.66) .08

b

Level \* height

-0.10 (0.24) .68

b

Level \* smoking

3.53 (5.66) .53

b

Level \* cardio

-0.66 (7.67) .93

b

Level \* diabetes

-0.75 (3.69) .84

b

Slope \* age

-0.06 (0.08) .47

b

Slope \* education

-0.15 (0.14) .29

b

Slope \* height

-0.02 (0.07) .78

b

Slope \* smoking

-0.37 (1.10) .73

b

Slope \* cardio

0.19 (1.43) .89

b

Slope \* diabetes

0.16 (0.93) .86

a

Var (Level)

12987.75 (5824.20) .03

a

Var (Slope)

180.45 (291.64) .54

a

Var (Residual)

3468.52 (625.64) <.01

b

Var (Level)

64.45 (21.43) <.01

b

Var (Slope)

0.87 (0.95) .35

b

Var (Residual)

20.44 (4.21) <.01

a

Covar (Level, Slope)

-969.01 (954.07) .31

b

Covar (Level, Slope)

-5.52 (3.64) .13

Correlation of Levels

-0.167

Correlation of Slopes

-0.112

Correlation of Residuals

0.053

N

72

occasions

7

parameters

41

LL

-2,448

AIC

4,978

BIC

5,072

## digit\_tot

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

process

label

a

ae

aeh

full

ab

Covar (Levels)

-70.53 (80.52) .38

-79.11 (82.09) .34

-103.44 (109.85) .35

-81.43 (142.00) .57

ab

Covar (Slopes)

-1.66 (2.07) .42

-1.73 (2.25) .44

-5.04 (4.14) .22

-4.07 (5.22) .43

ab

Covar (Residuals)

16.61 (8.93) .06

16.90 (9.43) .07

21.52 (14.71) .14

20.51 (20.13) .31

er

Corr (Levels)

---

---

---

---

er

Corr (Slopes)

---

---

---

---

er

Corr (Residuals)

---

---

---

---

a

Level

454.79 (29.61) <.01

436.64 (46.16) <.01

412.12 (66.58) <.01

477.18 (153.24) <.01

a

Slope

-15.22 (9.10) .10

-12.33 (13.96) .38

-31.06 (27.15) .25

-37.62 (40.31) .35

a

Level \* age

-3.64 (3.32) .27

-3.64 (3.30) .27

-4.29 (5.78) .46

-5.20 (7.38) .48

a

Level \* education

---

2.45 (5.00) .62

4.90 (7.21) .50

3.62 (9.86) .71

a

Level \* height

---

---

3.31 (3.02) .27

3.48 (4.64) .45

a

Level \* smoking

---

---

---

-42.30 (110.78) .70

a

Level \* cardio

---

---

---

-30.08 (93.01) .75

a

Level \* diabetes

---

---

---

-1.12 (61.35) .98

a

Slope \* age

-0.56 (0.94) .55

-0.56 (1.01) .58

0.34 (2.25) .88

0.45 (2.93) .88

a

Slope \* education

---

-0.39 (1.08) .72

0.98 (1.57) .53

1.15 (2.42) .64

a

Slope \* height

---

---

-0.19 (0.98) .85

-0.20 (2.08) .92

a

Slope \* smoking

---

---

---

5.88 (23.22) .80

a

Slope \* cardio

---

---

---

9.02 (23.38) .70

a

Slope \* diabetes

---

---

---

-3.37 (20.12) .87

b

Level

13.76 (0.39) <.01

13.75 (0.40) <.01

14.09 (2.16) <.01

13.69 (3.84) <.01

b

Slope

0.19 (0.08) .02

0.16 (0.11) .14

-0.34 (0.42) .42

-0.31 (0.80) .70

b

Level \* age

-0.03 (0.04) .50

-0.03 (0.04) .50

-0.06 (0.14) .69

-0.04 (0.19) .83

b

Level \* education

---

0.00 (0.01) .98

0.29 (0.19) .13

0.33 (0.26) .20

b

Level \* height

---

---

-0.15 (0.07) .03

-0.12 (0.09) .15

b

Level \* smoking

---

---

---

0.91 (1.95) .64

b

Level \* cardio

---

---

---

0.66 (1.78) .71

b

Level \* diabetes

---

---

---

-0.82 (1.92) .67

b

Slope \* age

-0.00 (0.01) .62

-0.00 (0.01) .63

0.02 (0.03) .49

0.02 (0.04) .67

b

Slope \* education

---

0.00 (0.01) .70

0.01 (0.03) .84

0.00 (0.05) .98

b

Slope \* height

---

---

0.01 (0.01) .40

0.00 (0.02) .91

b

Slope \* smoking

---

---

---

-0.09 (0.38) .81

b

Slope \* cardio

---

---

---

0.03 (0.64) .96

b

Slope \* diabetes

---

---

---

-0.10 (0.58) .86

a

Var (Level)

12724.37 (3116.69) <.01

12613.78 (3355.28) <.01

12625.82 (5395.72) .02

12472.82 (8409.86) .14

a

Var (Slope)

282.59 (137.18) .04

288.30 (153.70) .06

375.76 (442.97) .40

366.50 (775.59) .64

a

Var (Residual)

4844.77 (353.36) <.01

4854.50 (356.20) <.01

4192.50 (487.00) <.01

4119.94 (715.76) <.01

b

Var (Level)

12.48 (1.25) <.01

12.48 (1.25) <.01

11.10 (3.37) <.01

10.46 (4.10) .01

b

Var (Slope)

0.02 (0.03) .40

0.02 (0.03) .37

0.10 (0.08) .21

0.05 (0.12) .66

b

Var (Residual)

3.10 (0.17) <.01

3.09 (0.17) <.01

2.48 (0.37) <.01

2.56 (0.42) <.01

a

Covar (Level, Slope)

-980.03 (477.68) .04

-985.11 (503.33) .05

-931.01 (1187.26) .43

-1003.17 (1990.62) .61

b

Covar (Level, Slope)

-0.34 (0.19) .07

-0.36 (0.19) .06

-0.62 (0.55) .26

-0.51 (0.77) .50

Correlation of Levels

-0.18

-0.20

-0.28

-0.23

Correlation of Slopes

-0.67

-0.66

-0.81

-0.94

Correlation of Residuals

0.14

0.14

0.21

0.20

N

379

379

72

72

occasions

8

8

7

8

parameters

21

25

29

45

LL

-4,878

-4,877

-2,147

-2,175

AIC

9,798

9,805

4,352

4,439

BIC

9,881

9,903

4,418

4,542

## fas

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

process

label

aehplus

ab

Covar (Levels)

-84.00 (457.25) .85

ab

Covar (Slopes)

-6.28 (19.83) .75

ab

Covar (Residuals)

-1.30 (74.41) .99

er

Corr (Levels)

-0.07 (0.40) .85

er

Corr (Slopes)

-0.66 (1.85) .72

er

Corr (Residuals)

-0.00 (0.25) .99

a

Level

448.83 (103.35) <.01

a

Slope

-30.09 (32.83) .36

a

Level \* age

-5.25 (6.02) .38

a

Level \* education

5.25 (9.24) .57

a

Level \* height

2.68 (3.96) .50

a

Level \* smoking

-31.45 (61.98) .61

a

Level \* cardio

-23.77 (70.83) .74

a

Level \* diabetes

-15.79 (55.07) .77

a

Slope \* age

0.44 (1.91) .82

a

Slope \* education

-0.34 (2.49) .89

a

Slope \* height

0.40 (1.46) .78

a

Slope \* smoking

6.80 (15.82) .67

a

Slope \* cardio

-0.26 (17.75) .99

a

Slope \* diabetes

0.05 (15.55) .99

b

Level

25.03 (7.40) <.01

b

Slope

1.33 (1.56) .40

b

Level \* age

-0.04 (0.46) .93

b

Level \* education

1.62 (0.52) <.01

b

Level \* height

-0.36 (0.30) .23

b

Level \* smoking

1.82 (4.25) .67

b

Level \* cardio

0.66 (7.36) .93

b

Level \* diabetes

-5.58 (4.16) .18

b

Slope \* age

0.00 (0.07) .99

b

Slope \* education

-0.15 (0.16) .34

b

Slope \* height

0.01 (0.07) .83

b

Slope \* smoking

0.08 (0.91) .93

b

Slope \* cardio

-0.47 (1.34) .72

b

Slope \* diabetes

-0.26 (0.79) .74

a

Var (Level)

13100.68 (6328.99) .04

a

Var (Slope)

200.08 (318.09) .53

a

Var (Residual)

3410.14 (480.58) <.01

b

Var (Level)

95.09 (39.59) .02

b

Var (Slope)

0.45 (0.84) .59

b

Var (Residual)

25.75 (3.79) <.01

a

Covar (Level, Slope)

-1010.84 (1177.12) .39

b

Covar (Level, Slope)

0.56 (6.82) .93

Correlation of Levels

-0.0753

Correlation of Slopes

-0.6585

Correlation of Residuals

-0.0044

N

72

occasions

7

parameters

41

LL

-2,505

AIC

5,093

BIC

5,186

## logic\_tot

Gender = *male*; Process (a) = *pef*; Process (b) = *logic\_tot*

process

label

aehplus

ab

Covar (Levels)

-120.30 (194.44) .54

ab

Covar (Slopes)

5.46 (7.82) .48

ab

Covar (Residuals)

17.12 (36.61) .64

er

Corr (Levels)

-0.20 (0.34) .56

er

Corr (Slopes)

0.67 (1.07) .53

er

Corr (Residuals)

0.08 (0.17) .64

a

Level

456.86 (98.09) <.01

a

Slope

-34.53 (35.23) .33

a

Level \* age

-5.34 (6.24) .39

a

Level \* education

4.78 (9.01) .60

a

Level \* height

2.37 (3.88) .54

a

Level \* smoking

-36.01 (70.96) .61

a

Level \* cardio

-22.74 (72.43) .75

a

Level \* diabetes

-14.61 (54.25) .79

a

Slope \* age

0.54 (1.88) .78

a

Slope \* education

-0.07 (2.57) .98

a

Slope \* height

0.62 (1.43) .66

a

Slope \* smoking

9.02 (17.20) .60

a

Slope \* cardio

-1.98 (21.64) .93

a

Slope \* diabetes

-0.22 (18.16) .99

b

Level

15.38 (5.50) <.01

b

Slope

1.77 (1.15) .12

b

Level \* age

-0.08 (0.30) .78

b

Level \* education

0.86 (0.33) .01

b

Level \* height

0.09 (0.17) .57

b

Level \* smoking

-0.08 (3.31) .98

b

Level \* cardio

1.25 (2.63) .63

b

Level \* diabetes

0.86 (3.04) .78

b

Slope \* age

-0.09 (0.08) .23

b

Slope \* education

-0.13 (0.07) .08

b

Slope \* height

-0.02 (0.04) .64

b

Slope \* smoking

-0.07 (0.72) .92

b

Slope \* cardio

-0.49 (1.10) .66

b

Slope \* diabetes

0.82 (0.88) .35

a

Var (Level)

12861.00 (7065.11) .07

a

Var (Slope)

176.62 (314.29) .57

a

Var (Residual)

3460.22 (747.13) <.01

b

Var (Level)

28.36 (13.93) .04

b

Var (Slope)

0.38 (0.55) .50

b

Var (Residual)

13.52 (2.34) <.01

a

Covar (Level, Slope)

-918.32 (1230.92) .46

b

Covar (Level, Slope)

-1.25 (2.61) .63

Correlation of Levels

-0.199

Correlation of Slopes

0.671

Correlation of Residuals

0.079

N

72

occasions

7

parameters

41

LL

-2,375

AIC

4,833

BIC

4,926

## mmse

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

process

label

aehplus

ab

Covar (Levels)

3.42 (39.86) .93

ab

Covar (Slopes)

1.42 (2.61) .59

ab

Covar (Residuals)

6.43 (8.88) .47

er

Corr (Levels)

0.05 (0.62) .93

er

Corr (Slopes)

0.90 (1.11) .42

er

Corr (Residuals)

0.13 (0.19) .47

a

Level

452.80 (113.83) <.01

a

Slope

-33.81 (30.08) .26

a

Level \* age

-5.17 (6.51) .43

a

Level \* education

5.14 (10.16) .61

a

Level \* height

2.46 (3.41) .47

a

Level \* smoking

-33.55 (80.02) .68

a

Level \* cardio

-27.24 (80.99) .74

a

Level \* diabetes

-15.10 (65.94) .82

a

Slope \* age

0.49 (1.76) .78

a

Slope \* education

-0.23 (2.64) .93

a

Slope \* height

0.54 (1.16) .64

a

Slope \* smoking

8.16 (14.71) .58

a

Slope \* cardio

1.41 (17.95) .94

a

Slope \* diabetes

-0.09 (19.09) .99

b

Level

26.59 (0.70) <.01

b

Slope

-0.02 (0.31) .95

b

Level \* age

-0.00 (0.04) .97

b

Level \* education

0.07 (0.06) .24

b

Level \* height

0.00 (0.03) .98

b

Level \* smoking

-0.22 (0.42) .60

b

Level \* cardio

-0.03 (0.56) .95

b

Level \* diabetes

-0.04 (0.45) .92

b

Slope \* age

-0.00 (0.02) .84

b

Slope \* education

-0.00 (0.02) .90

b

Slope \* height

-0.00 (0.01) .93

b

Slope \* smoking

0.07 (0.14) .60

b

Slope \* cardio

0.02 (0.19) .90

b

Slope \* diabetes

0.01 (0.17) .94

a

Var (Level)

13498.16 (7104.04) .06

a

Var (Slope)

222.00 (310.45) .47

a

Var (Residual)

3440.49 (552.54) <.01

b

Var (Level)

0.30 (0.42) .48

b

Var (Slope)

0.01 (0.03) .72

b

Var (Residual)

0.67 (0.13) <.01

a

Covar (Level, Slope)

-1146.23 (1383.22) .41

b

Covar (Level, Slope)

0.03 (0.11) .80

Correlation of Levels

0.054

Correlation of Slopes

0.906

Correlation of Residuals

0.134

N

72

occasions

7

parameters

41

LL

-1,861

AIC

3,805

BIC

3,898

## symbol

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

process

label

a

ae

aeh

aehplus

full

ab

Covar (Levels)

202.38 (275.03) .46

254.31 (324.72) .43

22.35 (219.05) .92

6.90 (344.49) .98

-11.37 (340.76) .97

ab

Covar (Slopes)

2.17 (6.18) .72

11.27 (11.71) .34

-5.65 (15.36) .71

1.26 (13.53) .93

-4.70 (22.26) .83

ab

Covar (Residuals)

14.26 (33.02) .67

5.07 (40.65) .90

17.96 (55.65) .75

-23.96 (53.19) .65

16.72 (82.66) .84

er

Corr (Levels)

---

---

---

0.01 (0.36) .98

---

er

Corr (Slopes)

---

---

---

0.08 (0.85) .92

---

er

Corr (Residuals)

---

---

---

-0.08 (0.18) .66

---

a

Level

449.90 (33.34) <.01

439.83 (55.76) <.01

407.42 (64.29) <.01

457.18 (97.64) <.01

464.53 (143.13) <.01

a

Slope

-14.85 (9.59) .12

-12.82 (18.01) .48

-26.04 (33.48) .44

-34.05 (26.54) .20

-26.95 (47.63) .57

a

Level \* age

-4.76 (3.32) .15

-4.45 (3.68) .23

-4.66 (4.87) .34

-5.51 (5.67) .33

-5.39 (5.87) .36

a

Level \* education

---

0.40 (5.41) .94

6.08 (6.40) .34

4.83 (8.19) .56

5.15 (10.03) .61

a

Level \* height

---

---

3.20 (2.81) .25

2.54 (3.58) .48

3.20 (3.90) .41

a

Level \* smoking

---

---

---

-38.90 (76.04) .61

-35.26 (87.59) .69

a

Level \* cardio

---

---

---

-20.74 (72.43) .78

-14.15 (84.51) .87

a

Level \* diabetes

---

---

---

-16.69 (51.98) .75

-12.34 (59.41) .83

a

Slope \* age

-0.24 (0.95) .80

-0.40 (1.19) .74

0.35 (2.02) .86

0.57 (1.70) .74

0.39 (2.67) .88

a

Slope \* education

---

0.05 (1.41) .97

0.22 (2.00) .91

-0.13 (2.18) .95

0.17 (2.46) .94

a

Slope \* height

---

---

-0.20 (1.07) .85

0.55 (1.15) .64

-0.11 (1.59) .95

a

Slope \* smoking

---

---

---

10.46 (17.99) .56

2.26 (22.21) .92

a

Slope \* cardio

---

---

---

-1.88 (24.54) .94

-4.20 (47.52) .93

a

Slope \* diabetes

---

---

---

1.36 (15.23) .93

1.49 (26.15) .95

b

Level

39.50 (1.32) <.01

38.47 (1.48) <.01

39.17 (4.82) <.01

40.48 (9.13) <.01

40.53 (9.49) <.01

b

Slope

0.47 (0.34) .16

1.05 (0.67) .12

0.68 (1.62) .68

0.66 (2.08) .75

0.49 (2.27) .83

b

Level \* age

-0.29 (0.14) .04

-0.26 (0.14) .06

-0.20 (0.32) .53

-0.18 (0.38) .64

-0.18 (0.39) .64

b

Level \* education

---

-0.02 (0.08) .83

1.27 (0.58) .03

1.32 (0.81) .10

1.25 (0.74) .09

b

Level \* height

---

---

0.09 (0.25) .73

0.10 (0.23) .67

0.09 (0.26) .73

b

Level \* smoking

---

---

---

0.42 (5.41) .94

0.13 (5.51) .98

b

Level \* cardio

---

---

---

-4.72 (5.51) .39

-4.51 (6.34) .48

b

Level \* diabetes

---

---

---

-4.19 (4.86) .39

-4.21 (4.69) .37

b

Slope \* age

-0.06 (0.04) .11

-0.07 (0.04) .09

-0.02 (0.08) .83

-0.02 (0.08) .82

-0.02 (0.10) .87

b

Slope \* education

---

0.01 (0.08) .91

-0.14 (0.16) .39

-0.17 (0.18) .34

-0.14 (0.20) .50

b

Slope \* height

---

---

0.01 (0.06) .84

0.01 (0.07) .88

0.01 (0.08) .86

b

Slope \* smoking

---

---

---

-0.08 (0.98) .93

0.09 (1.10) .94

b

Slope \* cardio

---

---

---

0.57 (1.62) .72

0.42 (1.71) .81

b

Slope \* diabetes

---

---

---

0.19 (1.05) .86

0.14 (1.32) .91

a

Var (Level)

12660.93 (3253.44) <.01

11511.62 (3715.95) <.01

11004.88 (4343.89) .01

13294.09 (5899.23) .02

10422.16 (6299.55) .10

a

Var (Slope)

238.03 (126.63) .06

216.25 (303.90) .48

154.46 (356.16) .66

217.96 (300.61) .47

143.87 (587.66) .81

a

Var (Residual)

4727.66 (346.59) <.01

5679.66 (579.35) <.01

4601.12 (707.03) <.01

3478.41 (692.94) <.01

4614.54 (1247.23) <.01

b

Var (Level)

156.18 (16.60) <.01

147.53 (16.95) <.01

75.96 (27.20) <.01

69.21 (30.38) .02

69.55 (34.24) .04

b

Var (Slope)

1.44 (0.38) <.01

2.02 (0.88) .02

1.94 (1.40) .17

1.12 (0.96) .24

1.85 (1.81) .31

b

Var (Residual)

28.87 (1.38) <.01

28.37 (1.67) <.01

24.22 (3.16) <.01

25.64 (4.23) <.01

24.27 (4.44) <.01

a

Covar (Level, Slope)

-883.37 (461.78) .06

-693.83 (897.24) .44

-394.50 (907.27) .66

-1123.34 (1211.07) .35

-365.61 (1543.45) .81

b

Covar (Level, Slope)

-3.58 (2.42) .14

-2.40 (3.71) .52

-0.59 (4.64) .90

0.66 (4.91) .89

-0.09 (5.94) .99

Correlation of Levels

0.144

0.195

0.024

0.0072

-0.013

Correlation of Slopes

0.118

0.538

-0.327

0.0805

-0.288

Correlation of Residuals

0.039

0.013

0.054

-0.0802

0.050

N

377

377

72

72

72

occasions

9

5

6

7

6

parameters

21

25

29

41

45

LL

-6,302

-5,301

-2,420

-2,504

-2,416

AIC

12,646

10,651

4,898

5,090

4,922

BIC

12,728

10,750

4,964

5,183

5,024

## trailsb

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

process

label

ae

aeh

full

ab

Covar (Levels)

-9.52 (1556.25) .99

956.14 (1283.00) .46

1129.70 (2255.92) .62

ab

Covar (Slopes)

20.77 (31.42) .51

11.70 (68.11) .86

20.02 (163.04) .90

ab

Covar (Residuals)

4.79 (289.00) .99

-267.66 (634.01) .67

-284.29 (1021.38) .78

er

Corr (Levels)

---

---

---

er

Corr (Slopes)

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---

---

er

Corr (Residuals)

---

---

---

a

Level

449.46 (48.72) <.01

413.57 (61.67) <.01

467.80 (151.55) <.01

a

Slope

-16.65 (13.61) .22

-29.16 (30.96) .35

-29.38 (50.40) .56

a

Level \* age

-4.54 (3.23) .16

-4.87 (5.25) .35

-5.54 (8.93) .54

a

Level \* education

1.16 (5.44) .83

5.80 (6.35) .36

4.81 (8.00) .55

a

Level \* height

---

3.09 (3.19) .33

3.10 (4.75) .52

a

Level \* smoking

---

---

-35.41 (103.71) .73

a

Level \* cardio

---

---

-18.28 (77.44) .81

a

Level \* diabetes

---

---

0.61 (77.01) .99

a

Slope \* age

-0.19 (0.88) .83

0.43 (2.02) .83

0.44 (3.12) .89

a

Slope \* education

-0.01 (1.19) .99

0.40 (1.97) .84

0.38 (2.20) .86

a

Slope \* height

---

-0.12 (1.03) .91

-0.07 (1.61) .97

a

Slope \* smoking

---

---

3.21 (24.96) .90

a

Slope \* cardio

---

---

-1.17 (24.21) .96

a

Slope \* diabetes

---

---

-5.08 (33.70) .88

b

Level

131.50 (9.85) <.01

159.64 (30.56) <.01

160.29 (70.48) .02

b

Slope

2.26 (3.10) .47

-0.02 (9.19) .99

2.94 (17.25) .86

b

Level \* age

1.90 (0.82) .02

1.11 (2.27) .62

1.09 (3.22) .74

b

Level \* education

0.29 (0.37) .43

-6.50 (3.32) .05

-6.31 (5.10) .22

b

Level \* height

---

-0.66 (1.39) .64

-0.57 (2.04) .78

b

Level \* smoking

---

---

-3.09 (45.38) .95

b

Level \* cardio

---

---

24.23 (34.58) .48

b

Level \* diabetes

---

---

3.59 (25.26) .89

b

Slope \* age

0.14 (0.20) .49

0.19 (0.57) .74

0.10 (0.74) .89

b

Slope \* education

-0.18 (0.34) .60

0.30 (0.82) .71

0.17 (1.08) .88

b

Slope \* height

---

0.42 (0.32) .19

0.38 (0.48) .43

b

Slope \* smoking

---

---

-1.94 (11.21) .86

b

Slope \* cardio

---

---

-9.06 (11.69) .44

b

Slope \* diabetes

---

---

4.74 (7.00) .50

a

Var (Level)

12270.35 (3595.63) <.01

12393.75 (4933.39) .01

11597.20 (5921.83) .05

a

Var (Slope)

203.13 (111.33) .07

244.43 (352.12) .49

226.60 (632.86) .72

a

Var (Residual)

4774.16 (348.56) <.01

4309.09 (496.84) <.01

4301.06 (654.03) <.01

b

Var (Level)

3968.80 (636.03) <.01

1632.33 (733.60) .03

1526.70 (862.93) .08

b

Var (Slope)

35.32 (14.12) .01

34.69 (29.95) .25

13.39 (37.07) .72

b

Var (Residual)

1554.35 (56.69) <.01

1652.60 (158.73) <.01

1674.38 (205.62) <.01

a

Covar (Level, Slope)

-760.94 (503.61) .13

-812.64 (1069.79) .45

-695.74 (1812.17) .70

b

Covar (Level, Slope)

-147.56 (91.75) .11

-106.16 (171.63) .54

-67.38 (195.07) .73

Correlation of Levels

-0.0014

0.21

0.27

Correlation of Slopes

0.2452

0.13

0.36

Correlation of Residuals

0.0018

-0.10

-0.11

N

368

72

72

occasions

9

8

8

parameters

25

29

45

LL

-8,270

-3,279

-3,271

AIC

16,590

6,616

6,631

BIC

16,688

6,682

6,734

## Summary

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

Computed correlations:

label

process\_b

a

ae

aeh

aehplus

full

Correlation of Levels

block

.

-0.13

-0.12

-0.15

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Correlation of Levels

bnt

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-0.10

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Correlation of Levels

categories

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-0.17

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Correlation of Levels

digit\_tot

-0.18

-0.20

-0.28

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-0.23

Correlation of Levels

fas

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-0.08

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Correlation of Levels

logic\_tot

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-0.20

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Correlation of Levels

mmse

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0.05

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Correlation of Levels

symbol

0.14

0.20

0.02

0.01

-0.01

Correlation of Levels

trailsb

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-0.00

0.21

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0.27

label

process\_b

a

ae

aeh

aehplus

full

Correlation of Slopes

block

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-0.03

-0.05

0.13

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Correlation of Slopes

bnt

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-0.15

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Correlation of Slopes

categories

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-0.11

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Correlation of Slopes

digit\_tot

-0.67

-0.66

-0.81

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-0.94

Correlation of Slopes

fas

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-0.66

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Correlation of Slopes

logic\_tot

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0.67

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Correlation of Slopes

mmse

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0.91

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Correlation of Slopes

symbol

0.12

0.54

-0.33

0.08

-0.29

Correlation of Slopes

trailsb

.

0.25

0.13

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0.36

label

process\_b

a

ae

aeh

aehplus

full

Correlation of Residuals

block

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0.02

0.09

0.02

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Correlation of Residuals

bnt

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0.09

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Correlation of Residuals

categories

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0.05

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Correlation of Residuals

digit\_tot

0.14

0.14

0.21

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0.20

Correlation of Residuals

fas

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-0.00

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Correlation of Residuals

logic\_tot

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0.08

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Correlation of Residuals

mmse

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0.13

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Correlation of Residuals

symbol

0.04

0.01

0.05

-0.08

0.05

Correlation of Residuals

trailsb

.

0.00

-0.10

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-0.11

P-values for corresponding covariances:

label

process\_b

a

ae

aeh

aehplus

full

Covariance of Levels

block

.

0.37

0.47

0.72

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Covariance of Levels

bnt

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0.83

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Covariance of Levels

categories

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0.64

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Covariance of Levels

digit\_tot

0.38

0.34

0.35

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0.57

Covariance of Levels

fas

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0.85

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Covariance of Levels

logic\_tot

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0.54

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Covariance of Levels

mmse

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0.93

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Covariance of Levels

symbol

0.46

0.43

0.92

0.98

0.97

Covariance of Levels

trailsb

.

0.99

0.46

.

0.62

label

process\_b

a

ae

aeh

aehplus

full

Covariance of Slopes

block

.

0.96

0.99

0.98

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Covariance of Slopes

bnt

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0.92

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Covariance of Slopes

categories

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0.92

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Covariance of Slopes

digit\_tot

0.42

0.44

0.22

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0.43

Covariance of Slopes

fas

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0.75

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Covariance of Slopes

logic\_tot

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0.48

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Covariance of Slopes

mmse

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0.59

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Covariance of Slopes

symbol

0.72

0.34

0.71

0.93

0.83

Covariance of Slopes

trailsb

.

0.51

0.86

.

0.90

label

process\_b

a

ae

aeh

aehplus

full

Covariance of Residuals

block

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0.76

0.45

0.89

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Covariance of Residuals

bnt

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0.73

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Covariance of Residuals

categories

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0.77

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Covariance of Residuals

digit\_tot

0.06

0.07

0.14

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0.31

Covariance of Residuals

fas

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0.99

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Covariance of Residuals

logic\_tot

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0.64

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Covariance of Residuals

mmse

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0.47

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Covariance of Residuals

symbol

0.67

0.90

0.75

0.65

0.84

Covariance of Residuals

trailsb

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0.99

0.67

.

0.78

#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 IalsaSynthesis\_0.1.8.9000 MplusAutomation\_0.6-4   
[5] magrittr\_1.5   
  
loaded via a namespace (and not attached):  
 [1] Rcpp\_0.12.7 formatR\_1.4 plyr\_1.8.4 highr\_0.6 tools\_3.3.1 boot\_1.3-18   
 [7] digest\_0.6.10 evaluate\_0.10 tibble\_1.2 gtable\_0.2.0 lattice\_0.20-34 texreg\_1.36.7   
[13] DBI\_0.5-1 yaml\_2.1.13 proto\_0.3-10 coda\_0.18-1 dplyr\_0.5.0 stringr\_1.1.0   
[19] htmlwidgets\_0.7 grid\_3.3.1 DT\_0.2 R6\_2.2.0 gsubfn\_0.6-6 rmarkdown\_1.1   
[25] pander\_0.6.0 tidyr\_0.6.0 readr\_1.0.0 scales\_0.4.0 htmltools\_0.3.5 rsconnect\_0.5   
[31] assertthat\_0.1 testit\_0.5 xtable\_1.8-2 colorspace\_1.2-7 stringi\_1.1.2 lazyeval\_0.2.0   
[37] munsell\_0.4.3