Elektronisches Supplement 1

M*plus*-Inputs

Anmerkung. Redundante Abschnitte werden nicht wiederholt. Es werden nur Abschnitte dargestellt, die sich von früheren Modellen unterscheiden.

CFA (3-Faktorenmodell)
DATA: FILE IS MPLUS.dat;
VARIABLE: NAMES ARE sex age a1-a23 b1 b2 b3 c1 c2 c3 f1 f2 f3 g1-g6 h1-h6 i1-i23 j1 j2 j3 k1 k2 k3 l1-l6 m1-m6 n1 n2 n3 MNre DNre ZMNre ZDNre;
USEVARIABLES ARE i5 i11 i17 i3 i13 i19 i9 i16 i22 i12 i18 i23 j1 j2 j3;
MISSING = all (999);
ANALYSIS: ESTIMATOR IS MLR;
MODEL:
AUT by i5 i11 i17 i3 i13 i19;
KONT by i12 i18 i23 i9 i16 i22;
AMOT by j1 j2 j3;
OUTPUT: SAMPSTAT STANDARDIZED RESIDUAL CINTERVAL TECH1 TECH2 TECH4 MODINDICES(ALL);

CFA (5-Faktorenmodell)
DATA: FILE IS MPLUS.dat;
VARIABLE: NAMES ARE sex age a1-a23 b1 b2 b3 c1 c2 c3 f1 f2 f3 g1-g6 h1-h6 i1-i23 j1 j2 j3 k1 k2 k3 l1-l6 m1-m6 n1 n2 n3 MNre DNre ZMNre ZDNre;
USEVARIABLES ARE i5 i11 i17 i3 i13 i19 i9 i16 i22 i12 i18 i23 j1 j2 j3;
MISSING = all (999);
ANALYSIS: ESTIMATOR IS MLR;
MODEL:
INTR by i5 i11 i17;
IDENT by i3 i13 i19;
INTRO by i12 i18 i23;
EXTR by i9 i16 i22;
AMOT by j1 j2 j3;

CFA höherer Ordnung
MODEL:
INTR by i5 i11 i17;
IDENT by i3 i13 i19;
INTRO by i12 i18 i23;
EXTR by i9 i16 i22;
AMOT by j1 j2 j3;
AUT by INTR IDENT;
KONT by INTRO EXTR;

B-CFA
MODEL:
GF by i5* i11 i17 i3 i13 i19 i12 i18 i23 i9 i16 i22 j1 j2 j3;
INTR by i5* i11 i17;
IDENT by i3* i13 i19;
INTRO by i12* i18 i23;
EXTR by i9* i16 i22;
AMOT by j1* j2 j3;

INTR@1; IDENT@1; INTRO@1; EXTR@1; AMOT@1;
INTR with IDENT@0;
INTR with INTRO@0;
INTR with EXTR@0;
INTR with AMOT@0;
IDENT with INTRO@0;
IDENT with EXTR@0;
IDENT with AMOT@0;
INTRO with EXTR@0;
INTRO with AMOT@0;
EXTR with AMOT@0;
GF with INTR@0;
GF with IDENT@0;
GF with INTRO@0;
GF with EXTR@0;
GF with AMOT@0;

ESEM
ANALYSIS: ESTIMATOR IS MLR;
ITERATIONS = 10000;
ROTATION = TARGET;
MODEL:
INTR by i5 i11 i17
          i3~0 i13~0 i19~0
          i12~0 i18~0 i23~0
          i9~0 i16~0 i22~0
          j1~0 j2~0 j3~0(*1);
IDENT by i3 i13 i19
          i5~0 i11~0 i17~0
          i12~0 i18~0 i23~0
          i9~0 i16~0 i22~0
          j1~0 j2~0 j3~0(*1);
INTRO by i12 i18 i23
          i5~0 i11~0 i17~0
          i3~0 i13~0 i19~0
          i9~0 i16~0 i22~0
          j1~0 j2~0 j3~0(*1);
EXTR by i9 i16 i22
          i5~0 i11~0 i17~0
          i3~0 i13~0 i19~0
          i12~0 i18~0 i23~0
          j1~0 j2~0 j3~0(*1);
AMOT by j1 j2 j3
          i5~0 i11~0 i17~0
          i3~0 i13~0 i19~0
          i12~0 i18~0 i23~0
          i9~0 i16~0 i22~0(*1);

B-ESEM

ANALYSIS: ESTIMATOR IS MLR;
ITERATIONS = 10000;
ROTATION = TARGET (orthogonal);
MODEL:
GF by   i5 i11 i17
         i3 i13 i19
         i12 i18 i23
         i9 i16 i22
         j1 j2 j3(*1);
INTR by i5 (b1)
         i11 (b2)
         i17 (b3)
         i3~0 i13~0 i19~0
         i12~0 i18~0 i23~0
         i9~0 i16~0 i22~0
         j1~0 j2~0 j3~0(*1);
IDENT by i3 (b4)
          i13 (b5)
          i19 (b6)
          i5~0 i11~0 i17~0
          i12~0 i18~0 i23~0
          i9~0 i16~0 i22~0
          j1~0 j2~0 j3~0(*1);
INTRO by i12 (b7)
          i18 (b8)
          i23 (b9)
          i5~0 i11~0 i17~0
          i3~0 i13~0 i19~0
          i9~0 i16~0 i22~0
          j1~0 j2~0 j3~0(*1);
EXTR by i9 (b10)
          i16 (b11)
          i22 (b12)
          i5~0 i11~0 i17~0
          i3~0 i13~0 i19~0
          i12~0 i18~0 i23~0
          j1~0 j2~0 j3~0(*1);
AMOT by j1 (b13)
          j2 (b14)
          j3 (b15)
          i5~0 i11~0 i17~0
          i3~0 i13~0 i19~0
          i12~0 i18~0 i23~0
          i9~0 i16~0 i22~0(*1);

i5(e1); i11(e2); i17(e3);
i3(e4); i13(e5); i19(e6);
i12(e7); i18(e8); i23(e9);
i9(e10); i16(e11); i22(e12);
j(e13); j2(e14); j3(e15);

MODEL CONSTRAINT:
! Die MODEL CONSTRAINT-Option wurde zur Berechnung der Omega-Koeffizienten angewendet.

new sumload6 sumevar6 omega6;
sumload6=(b1+b2+b3+b4+b5+b6+b7+b8+b9+b10+b11+b12+b13+b14+b15)**2;
sumevar6=e1+e2+e3+e4+e5+e6+e7+e8+e9+e10+e11+e12+e13+e14+e15;
omega6=sumload6/(sumload6+sumevar6);

new sumload1 sumevar1 omega1;
sumload1=(b1+b2+b3)**2;
sumevar1=e1+e2+e3;
omega1=sumload1/(sumload1+sumevar1);

new sumload2 sumevar2 omega2;
sumload2=(b4+b5+b6)**2;
sumevar2=e4+e5+e6;
omega2=sumload2/(sumload2+sumevar2);

new sumload3 sumevar3 omega3;
sumload3=(b7+b8+b9)**2;
sumevar3=e7+e8+e9;
omega3=sumload3/(sumload3+sumevar3);

new sumload4 sumevar4 omega4;
sumload4=(b10+b11+b12)**2;
sumevar4=e10+e11+e12;
omega4=sumload4/(sumload4+sumevar4);

new sumload5 sumevar5 omega5;
sumload5=(b13+b14+b15)**2;
sumevar5=e13+e14+e15;
omega5=sumload5/(sumload5+sumevar5);