

Mplus VERSION 8.4 (Mac)  
MUTHEN & MUTHEN  
01/22/2021 12:56 PM

# INPUT INSTRUCTIONS

```
TITLE: Measurement Models – School Conn 9
DATA: FILE = "All_Variables_012021.dat";
VARIABLE:
  NAMES = ff_id ThreatComp DepComp k6d2ag k6d2ai k6d2d k6d2j k6d2t
k6d2ac k6d2ak k6d2c
        k6d2n k6d2x p6b36 p6b40 p6b52 p6b53 p6b54 p6b68 p6b65 p6b66
k6d2ag_r k6d2ai_r
        k6d2d_r k6d2j_r k6d2t_r k6d2ac_r k6d2ak_r k6d2c_r k6d2n_r
k6d2x_r k6d61a k6d61b
        k6d61c k6d61d k6d61e k6d61f k6d61g k6d61h k6d61i k6d61j k6d61k
k6d61l k6d61m
        k6d2a k6d2p k6d2r k6d2z k6d2ab k6d2aj k6d40 k6d48 k6f63 k6f68
k6f74 p6b35 p6b37
        p6b38 p6b39 p6b41 p6b42 p6b43 p6b44 p6b45 p6b57 p6b59 p6b49
p6b50 p6b51 p6b60
        p6b61 p6b62 p6b63 p6b64 p6b67 k6d2a_r k6d2p_r k6d2r_r k6d2z_r
k6d2ab_r k6d2aj_r
        k6d40_r k6d48_r k6f63_r k6f68_r k6f74_r k6d2b k6d2e k6d2f k6d2g
k6d2h k6d2i
        k6d2k k6d2l k6d2m k6d2o k6d2s k6d2u k6d2v k6d2w k6d2y k6d2aa
k6d2ad k6d2ae
        k6d2af k6d2ah k6d2b_r k6d2e_r k6d2f_r k6d2g_r k6d2h_r k6d2i_r
k6d2k_r k6d2l_r
        k6d2m_r k6d2o_r k6d2s_r k6d2u_r k6d2v_r k6d2w_r k6d2y_r
k6d2aa_r k6d2ad_r
        k6d2ae_r k6d2af_r k6d2ah_r k5e1a k5e1b k5e1c k5e1d k6b1a k6b1b
k6b1c k6b1d
        k6b1a_r k6b1b_r k6b1c_r k6b1d_r p5q3m p5q3ab p5q3ac p5q3ad
p5q3ae p5q3af p5q3ah
        p5q3ar p5q3av p5q3ax p5q3bq p5q3ck p5q3db p5q3e p5q3ao p5q3bk
p5q3bo p5q3bu
        p5q3cu p5q3cv p5q3da p5q3as p5q3au p5q3aw p5q3az p5q3bb1
p5q3bb2 p5q3bb3
        p5q3bb4 p5q3bb5 p5q3bb6 p5q3bb7 p5q3b p5q3x p5q3aa p5q3al
p5q3ap p5q3bi p5q3bm
        p5q3br p5q3bs p5q3bz p5q3ca p5q3cj p5q3cp p5q3cr p5q3ct p5q3cx
p5q3cy p5q3c
        p5q3o p5q3r p5q3s p5q3t p5q3u p5q3v p5q3aj p5q3bc p5q3bn p5q3cf
p5q3cg p5q3ch
        p5q3ci p5q3cn p5q3co p5q3cq p5q3cw povco_avg Race_AA Race_C
Race_L ck6ethrace
        cm1bsex m1city;

USEVARIABLES =
```

```

!ThreatComp DepComp ! Not used in measurement model.
! SC15
! k6b1a_r k6b1b_r k6b1c_r k6b1d_r
! SC9
  k5e1a k5e1b k5e1c k5e1d
! Anxiety
! k6d2ag_r k6d2ai_r k6d2d_r k6d2j_r k6d2t_r
! Depression
! k6d2ac_r k6d2ak_r k6d2c_r k6d2n_r k6d2x_r
! Internalizing CBCL
!p6b36 p6b40 p6b52 p6b53 p6b54 p6b68 p6b65 p6b66
! Delinquency (Reverse Coded)
! k6d2a_r k6d2p_r k6d2r_r k6d2z_r k6d2ab_r k6d2aj_r
! Impulsivity
! k6d61a k6d61b k6d61c k6d61d k6d61e k6d61f k6d61g k6d61h
! k6d61i k6d61j k6d61k k6d61l k6d61m
! Substance Use (Dichotomous)
! k6d40_r k6d48_r k6f63_r k6f68_r k6f74_r
! Externalizing CBCL
!p6b35 p6b37 p6b38 p6b39 p6b41 p6b42 p6b43 p6b44 p6b45 p6b57 p6b59
p6b49 p6b50
!p6b51 p6b60 p6b61 p6b62 p6b63 p6b64 p6b67
! PAF
! k6d2b_r k6d2f_r k6d2g_r
! k6d2i_r k6d2k_r k6d2l_r k6d2m_r k6d2o_r
! k6d2s_r k6d2v_r k6d2w_r k6d2y_r
! k6d2aa_r k6d2ae_r k6d2af_r k6d2ah_r
;
! 9.24.2019 - I am removing te 4 items on the PAF engagement
subscale because
! they all have standard factor loadings below 0.3 and qualitatively
seem
! to be measuring something different. Those items are: k6d2e,
k6d2h, k6d2u, k6d2ad.

```

CATEGORICAL =

```

! SC15
! k6b1a_r k6b1b_r k6b1c_r k6b1d_r
! SC9
  k5e1a k5e1b k5e1c k5e1d
! Anxiety
! k6d2ag_r k6d2ai_r k6d2d_r k6d2j_r k6d2t_r
! Depression
! k6d2ac_r k6d2ak_r k6d2c_r k6d2n_r k6d2x_r
! Internalizing CBCL
!p6b36 p6b40 p6b52 p6b53 p6b54 p6b68 p6b65 p6b66
! Delinquency (Reverse Coded)
! k6d2a_r k6d2p_r k6d2r_r k6d2z_r k6d2ab_r k6d2aj_r
! Impulsivity
! k6d61a k6d61b k6d61c k6d61d k6d61e k6d61f k6d61g k6d61h

```

```

! k6d61i k6d61j k6d61k k6d61l k6d61m
! Substance Use (Dichotomous)
! k6d40_r k6d48_r k6f63_r k6f68_r k6f74_r
! Externalizing CBI
!p6b35 p6b37 p6b38 p6b39 p6b41 p6b42 p6b43 p6b44 p6b45 p6b57 p6b59
p6b49 p6b50
!p6b51 p6b60 p6b61 p6b62 p6b63 p6b64 p6b67
! PAF
! k6d2b_r k6d2f_r k6d2g_r
! k6d2i_r k6d2k_r k6d2l_r k6d2m_r k6d2o_r
! k6d2s_r k6d2v_r k6d2w_r k6d2y_r
! k6d2aa_r k6d2ae_r k6d2af_r k6d2ah_r
;

```

```

IDVARIABLE = ff_id;
MISSING=ALL(99);
cluster = m1city;

```

```

ANALYSIS:
PROCESSORS=8;
Type = Complex;

```

```

MODEL:

```

```

! School Connectedness @ Age 15
! SC15 BY k6b1a_r* k6b1b_r k6b1c_r k6b1d_r;
! SC15 @ 1;

```

```

! School Connectedness @ Age 9
! SC9 BY k5e1a* k5e1b k5e1c k5e1d;
! SC9 @ 1;

```

```

! Internalizing @ Age 15
! Internalizing BY k6d2ag_r* k6d2ai_r k6d2d_r k6d2j_r k6d2t_r
! k6d2ac_r k6d2ak_r k6d2c_r k6d2n_r k6d2x_r;
!p6b36 p6b40 p6b52 p6b53 p6b54 p6b68 p6b65 p6b66

```

```

! Internalizing @ 1;

```

```

! Externalizing @ Age 15 (Multi-informant)
! EXTERN BY k6d2a_r* k6d2p_r k6d2r_r k6d2z_r k6d2ab_r k6d2aj_r
! k6d61a k6d61b k6d61c k6d61d k6d61e k6d61f k6d61g k6d61h
! k6d61i k6d61j k6d61k k6d61l k6d61m
! k6d40_r k6d48_r k6f63_r k6f68_r k6f74_r;
!p6b35 p6b37 p6b38
!p6b39 p6b41 p6b42 p6b43 p6b44 p6b45 p6b57 p6b59 p6b49 p6b50
!p6b51 p6b60 p6b61 p6b62 p6b63 p6b64 p6b67

```

```

! EXTERN @ 1;

```

```

! PAF @ Age 15
! PAF BY k6d2b_r* k6d2f_r k6d2g_r
! k6d2i_r k6d2k_r k6d2l_r k6d2m_r k6d2o_r
! k6d2s_r k6d2v_r k6d2w_r k6d2y_r
! k6d2aa_r k6d2ae_r k6d2af_r k6d2ah_r;
! PAF @ 1;

```

OUTPUT: modindices (ALL) standardized sampstat;

SAVEDATA:

```

FILE IS CFA_FactorScores_SC9_012221.txt;
save = fscores;

```

\*\*\* WARNING

Data set contains unknown or missing values for GROUPING,  
PATTERN, COHORT, CLUSTER and/or STRATIFICATION variables.  
Number of cases with unknown or missing values: 1

\*\*\* WARNING

Data set contains cases with missing on all variables.  
These cases were not included in the analysis.  
Number of cases with missing on all variables: 1564  
2 WARNING(S) FOUND IN THE INPUT INSTRUCTIONS

Measurement Models – School Conn 9

#### SUMMARY OF ANALYSIS

Number of groups	1
Number of observations	3333
Number of dependent variables	4
Number of independent variables	0
Number of continuous latent variables	1

Observed dependent variables

```

Binary and ordered categorical (ordinal)
K5E1A      K5E1B      K5E1C      K5E1D

```

Continuous latent variables  
SC9

Variables with special functions

```
Cluster variable      M1CITY
ID variable          FF_ID
```

Estimator	WLSMV
Maximum number of iterations	1000
Convergence criterion	0.500D-04
Maximum number of steepest descent iterations	20
Maximum number of iterations for H1	2000
Convergence criterion for H1	0.100D-03
Parameterization	DELTA
Link	PROBIT

Input data file(s)  
All\_Variables\_012021.dat

Input data format    FREE

## SUMMARY OF DATA

Number of missing data patterns	13
Number of clusters	20

## COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

## PROPORTION OF DATA PRESENT

	Covariance	Coverage		
	K5E1A	K5E1B	K5E1C	K5E1D
K5E1A	0.986			
K5E1B	0.981	0.992		
K5E1C	0.984	0.990	0.998	
K5E1D	0.982	0.987	0.992	0.994

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

K5E1A		
Category 1	0.096	315.000
Category 2	0.088	288.000
Category 3	0.080	264.000
Category 4	0.147	484.000

Category 5	0.589	1936.000
K5E1B		
Category 1	0.129	427.000
Category 2	0.104	344.000
Category 3	0.100	332.000
Category 4	0.178	589.000
Category 5	0.488	1613.000
K5E1C		
Category 1	0.092	307.000
Category 2	0.072	239.000
Category 3	0.085	282.000
Category 4	0.156	519.000
Category 5	0.595	1978.000
K5E1D		
Category 1	0.062	207.000
Category 2	0.044	145.000
Category 3	0.049	162.000
Category 4	0.107	353.000
Category 5	0.738	2445.000

## SAMPLE STATISTICS

### ESTIMATED SAMPLE STATISTICS

	MEANS/INTERCEPTS/THRESHOLDS			
	K5E1A\$1	K5E1A\$2	K5E1A\$3	K5E1A\$4
K5E1B\$1				
	_____	_____	_____	_____
	-1.306	-0.902	-0.632	-0.225
-1.130				
	MEANS/INTERCEPTS/THRESHOLDS			
	K5E1B\$2	K5E1B\$3	K5E1B\$4	K5E1C\$1
K5E1C\$2				
	_____	_____	_____	_____
	-0.728	-0.430	0.030	-1.327
-0.977				
	MEANS/INTERCEPTS/THRESHOLDS			
	K5E1C\$3	K5E1C\$4	K5E1D\$1	K5E1D\$2
K5E1D\$3				
	_____	_____	_____	_____

-1.014	-0.678	-0.240	-1.534	-1.247
--------	--------	--------	--------	--------

MEANS/INTERCEPTS/THRESHOLDS  
K5E1D\$4

-0.638

CORRELATION MATRIX (WITH VARIANCES ON THE DIAGONAL)

	K5E1A	K5E1B	K5E1C	K5E1D
K5E1A	0.489			
K5E1B	0.506	0.457		
K5E1C	0.470	0.405	0.565	
K5E1D				

THE MODEL ESTIMATION TERMINATED NORMALLY

MODEL FIT INFORMATION

Number of Free Parameters 20

Chi-Square Test of Model Fit

Value	30.193*
Degrees of Freedom	2
P-Value	0.0000

\* The chi-square value for MLM, MLMV, MLR, ULSMV, WLSM and WLSMV cannot be used for chi-square difference testing in the regular way. MLM, MLR and WLSM chi-square difference testing is described on the Mplus website. MLMV, WLSMV, and ULSMV difference testing is done using the DIFFTEST option.

RMSEA (Root Mean Square Error Of Approximation)

Estimate	0.065
90 Percent C.I.	0.046 0.086
Probability RMSEA <= .05	0.096

CFI/TLI

CFI	0.988
-----	-------

TLI 0.963

Chi-Square Test of Model Fit for the Baseline Model

Value 2306.562  
Degrees of Freedom 6  
P-Value 0.0000

SRMR (Standardized Root Mean Square Residual)

Value 0.016

Optimum Function Value for Weighted Least-Squares Estimator

Value 0.20357308D-02

MODEL RESULTS

		Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
SC9	BY				
	K5E1A	0.701	0.018	38.847	0.000
	K5E1B	0.630	0.018	35.791	0.000
	K5E1C	0.743	0.012	63.201	0.000
	K5E1D	0.709	0.023	31.393	0.000
Thresholds					
	K5E1A\$1	-1.306	0.033	-39.410	0.000
	K5E1A\$2	-0.902	0.027	-33.125	0.000
	K5E1A\$3	-0.632	0.027	-23.829	0.000
	K5E1A\$4	-0.225	0.028	-8.157	0.000
	K5E1B\$1	-1.130	0.035	-32.702	0.000
	K5E1B\$2	-0.728	0.035	-20.799	0.000
	K5E1B\$3	-0.430	0.032	-13.238	0.000
	K5E1B\$4	0.030	0.037	0.818	0.414
	K5E1C\$1	-1.327	0.027	-49.765	0.000
	K5E1C\$2	-0.977	0.026	-38.094	0.000
	K5E1C\$3	-0.678	0.024	-28.375	0.000
	K5E1C\$4	-0.240	0.020	-12.267	0.000
	K5E1D\$1	-1.534	0.052	-29.779	0.000
	K5E1D\$2	-1.247	0.037	-33.994	0.000
	K5E1D\$3	-1.014	0.035	-29.152	0.000
	K5E1D\$4	-0.638	0.027	-23.472	0.000
Variances					
	SC9	1.000	0.000	999.000	999.000



# STANDARDIZED MODEL RESULTS

## STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
SC9 BY				
K5E1A	0.701	0.018	38.847	0.000
K5E1B	0.630	0.018	35.791	0.000
K5E1C	0.743	0.012	63.201	0.000
K5E1D	0.709	0.023	31.393	0.000
Thresholds				
K5E1A\$1	-1.306	0.033	-39.410	0.000
K5E1A\$2	-0.902	0.027	-33.125	0.000
K5E1A\$3	-0.632	0.027	-23.829	0.000
K5E1A\$4	-0.225	0.028	-8.157	0.000
K5E1B\$1	-1.130	0.035	-32.702	0.000
K5E1B\$2	-0.728	0.035	-20.799	0.000
K5E1B\$3	-0.430	0.032	-13.238	0.000
K5E1B\$4	0.030	0.037	0.818	0.414
K5E1C\$1	-1.327	0.027	-49.765	0.000
K5E1C\$2	-0.977	0.026	-38.094	0.000
K5E1C\$3	-0.678	0.024	-28.375	0.000
K5E1C\$4	-0.240	0.020	-12.267	0.000
K5E1D\$1	-1.534	0.052	-29.779	0.000
K5E1D\$2	-1.247	0.037	-33.994	0.000
K5E1D\$3	-1.014	0.035	-29.152	0.000
K5E1D\$4	-0.638	0.027	-23.472	0.000
Variances				
SC9	1.000	0.000	999.000	999.000

## STDY Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
SC9 BY				
K5E1A	0.701	0.018	38.847	0.000
K5E1B	0.630	0.018	35.791	0.000
K5E1C	0.743	0.012	63.201	0.000
K5E1D	0.709	0.023	31.393	0.000
Thresholds				
K5E1A\$1	-1.306	0.033	-39.410	0.000

K5E1A\$2	-0.902	0.027	-33.125	0.000
K5E1A\$3	-0.632	0.027	-23.829	0.000
K5E1A\$4	-0.225	0.028	-8.157	0.000
K5E1B\$1	-1.130	0.035	-32.702	0.000
K5E1B\$2	-0.728	0.035	-20.799	0.000
K5E1B\$3	-0.430	0.032	-13.238	0.000
K5E1B\$4	0.030	0.037	0.818	0.414
K5E1C\$1	-1.327	0.027	-49.765	0.000
K5E1C\$2	-0.977	0.026	-38.094	0.000
K5E1C\$3	-0.678	0.024	-28.375	0.000
K5E1C\$4	-0.240	0.020	-12.267	0.000
K5E1D\$1	-1.534	0.052	-29.779	0.000
K5E1D\$2	-1.247	0.037	-33.994	0.000
K5E1D\$3	-1.014	0.035	-29.152	0.000
K5E1D\$4	-0.638	0.027	-23.472	0.000

Variances				
SC9	1.000	0.000	999.000	999.000

#### STD Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
SC9				
BY				
K5E1A	0.701	0.018	38.847	0.000
K5E1B	0.630	0.018	35.791	0.000
K5E1C	0.743	0.012	63.201	0.000
K5E1D	0.709	0.023	31.393	0.000

Thresholds				
K5E1A\$1	-1.306	0.033	-39.410	0.000
K5E1A\$2	-0.902	0.027	-33.125	0.000
K5E1A\$3	-0.632	0.027	-23.829	0.000
K5E1A\$4	-0.225	0.028	-8.157	0.000
K5E1B\$1	-1.130	0.035	-32.702	0.000
K5E1B\$2	-0.728	0.035	-20.799	0.000
K5E1B\$3	-0.430	0.032	-13.238	0.000
K5E1B\$4	0.030	0.037	0.818	0.414
K5E1C\$1	-1.327	0.027	-49.765	0.000
K5E1C\$2	-0.977	0.026	-38.094	0.000
K5E1C\$3	-0.678	0.024	-28.375	0.000
K5E1C\$4	-0.240	0.020	-12.267	0.000
K5E1D\$1	-1.534	0.052	-29.779	0.000
K5E1D\$2	-1.247	0.037	-33.994	0.000
K5E1D\$3	-1.014	0.035	-29.152	0.000
K5E1D\$4	-0.638	0.027	-23.472	0.000

#### Variances

SC9	1.000	0.000	999.000	999.000
-----	-------	-------	---------	---------

# R-SQUARE

Observed Residual Variable Variance	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
K5E1A 0.509	0.491	0.025	19.424	0.000
K5E1B 0.603	0.397	0.022	17.895	0.000
K5E1C 0.448	0.552	0.017	31.600	0.000
K5E1D 0.497	0.503	0.032	15.696	0.000

# QUALITY OF NUMERICAL RESULTS

Condition Number for the Information Matrix  
0.493E-01  
(ratio of smallest to largest eigenvalue)

# MODEL MODIFICATION INDICES

Minimum M.I. value for printing the modification index 10.000

	M.I.	E.P.C.	Std E.P.C.	StdYX
--	------	--------	------------	-------

# ON Statements

K5E1A 0.124	ON K5E1B	29.611	0.124	0.124
K5E1A -0.094	ON K5E1C	11.514	-0.094	-0.094
K5E1B 0.124	ON K5E1A	29.585	0.124	0.124
K5E1B -0.080	ON K5E1D	11.544	-0.080	-0.080
K5E1C -0.094	ON K5E1A	11.517	-0.094	-0.094
K5E1C 0.148	ON K5E1D	29.635	0.148	0.148
K5E1D -0.080	ON K5E1B	11.525	-0.080	-0.080

K5E1D	ON K5E1C	29.645	0.148	0.148
0.148				

#### WITH Statements

K5E1B	WITH K5E1A	29.608	0.124	0.124
0.223				
K5E1C	WITH K5E1A	11.517	-0.094	-0.094
-0.196				
K5E1D	WITH K5E1B	11.529	-0.080	-0.080
-0.147				
K5E1D	WITH K5E1C	29.635	0.148	0.148
0.313				

#### SAMPLE STATISTICS FOR ESTIMATED FACTOR SCORES

##### SAMPLE STATISTICS

	Means	
	SC9	SC9_SE
	<hr/>	<hr/>
	-0.049	0.564
	Covariances	
	SC9	SC9_SE
	<hr/>	<hr/>
SC9	0.596	
SC9_SE	0.052	0.007
	Correlations	
	SC9	SC9_SE
	<hr/>	<hr/>
SC9	1.000	
SC9_SE	0.806	1.000

#### SAVEDATA INFORMATION

Save file  
CFA\_FactorScores\_SC9\_012221.txt

Order and format of variables

K5E1A            F10.3

K5E1B	F10.3
K5E1C	F10.3
K5E1D	F10.3
SC9	F10.3
SC9_SE	F10.3
FF_ID	I6
M1CITY	I3

Save file format  
6F10.3 I6 I3

Save file record length      10000

Beginning Time: 12:56:49  
Ending Time: 12:56:49  
Elapsed Time: 00:00:00

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