

Mplus VERSION 8.4 (Mac)  
MUTHEN & MUTHEN  
08/05/2020 12:44 PM

# INPUT INSTRUCTIONS

TITLE: Measurement Models – School Conn PAF Int

DATA: FILE = "All\_Variables\_072720.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 k5e2a k5e2b  
k5e2c k5e2d  
k6b1a k6b1b k6b1c k6b1d k6b32a k6b32b k6b32c k6b32d k6b32e  
k6b32f k5e2a\_r  
k5e2b\_r k5e2c\_r k5e2d\_r k6b1a\_r k6b1b\_r k6b1c\_r k6b1d\_r;

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 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

;

IDVARIABLE = ff\_id;  
MISSING=ALL(99);

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\_080520.txt;  
save = fscores;

\*\*\* 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: 1565  
1 WARNING(S) FOUND IN THE INPUT INSTRUCTIONS

Measurement Models – School Conn PAF Int

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

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\_072720.dat

Input data format FREE

SUMMARY OF DATA

Number of missing data patterns	13
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## 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				
	_____	_____	_____	_____
_____	-0.678	-0.240	-1.534	-1.247
-1.014				

MEANS/INTERCEPTS/THRESHOLDS	
K5E1D\$4	
	_____
	-0.638

	CORRELATION MATRIX (WITH VARIANCES ON THE DIAGONAL)			
	K5E1A	K5E1B	K5E1C	K5E1D
K5E1A	_____	_____	_____	_____
K5E1B	0.489			
K5E1C	0.506	0.457		
K5E1D	0.470	0.405	0.565	

THE MODEL ESTIMATION TERMINATED NORMALLY

MODEL FIT INFORMATION

Number of Free Parameters 20

Chi-Square Test of Model Fit

Value	35.818*
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	0.071	
90 Percent C.I.	0.052	0.093
Probability RMSEA <= .05	0.036	

CFI/TLI

CFI	0.990
TLI	0.971

Chi-Square Test of Model Fit for the Baseline Model

Value	3461.592
Degrees of Freedom	6
P-Value	0.0000

SRMR (Standardized Root Mean Square Residual)

Value	0.016
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Optimum Function Value for Weighted Least-Squares Estimator

Value	0.28121369D-02
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MODEL RESULTS

		Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
SC9	BY				

K5E1A	0.704	0.016	43.031	0.000
K5E1B	0.634	0.017	37.244	0.000
K5E1C	0.750	0.016	48.073	0.000
K5E1D	0.699	0.019	37.699	0.000

#### Thresholds

K5E1A\$1	-1.306	0.030	-43.259	0.000
K5E1A\$2	-0.902	0.025	-35.491	0.000
K5E1A\$3	-0.632	0.024	-26.859	0.000
K5E1A\$4	-0.225	0.022	-10.195	0.000
K5E1B\$1	-1.130	0.028	-40.803	0.000
K5E1B\$2	-0.728	0.024	-30.290	0.000
K5E1B\$3	-0.430	0.023	-19.053	0.000
K5E1B\$4	0.030	0.022	1.374	0.169
K5E1C\$1	-1.327	0.030	-43.729	0.000
K5E1C\$2	-0.977	0.026	-37.643	0.000
K5E1C\$3	-0.678	0.024	-28.651	0.000
K5E1C\$4	-0.240	0.022	-10.933	0.000
K5E1D\$1	-1.534	0.034	-44.857	0.000
K5E1D\$2	-1.247	0.029	-42.699	0.000
K5E1D\$3	-1.014	0.026	-38.451	0.000
K5E1D\$4	-0.638	0.023	-27.182	0.000

#### Variances

SC9	1.000	0.000	999.000	999.000
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### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

		Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
SC9	BY				
	K5E1A	0.704	0.016	43.031	0.000
	K5E1B	0.634	0.017	37.244	0.000
	K5E1C	0.750	0.016	48.073	0.000
	K5E1D	0.699	0.019	37.699	0.000
Thresholds					
	K5E1A\$1	-1.306	0.030	-43.259	0.000
	K5E1A\$2	-0.902	0.025	-35.491	0.000
	K5E1A\$3	-0.632	0.024	-26.859	0.000
	K5E1A\$4	-0.225	0.022	-10.195	0.000
	K5E1B\$1	-1.130	0.028	-40.803	0.000
	K5E1B\$2	-0.728	0.024	-30.290	0.000
	K5E1B\$3	-0.430	0.023	-19.053	0.000
	K5E1B\$4	0.030	0.022	1.374	0.169



K5E1C\$1	-1.327	0.030	-43.729	0.000
K5E1C\$2	-0.977	0.026	-37.643	0.000
K5E1C\$3	-0.678	0.024	-28.651	0.000
K5E1C\$4	-0.240	0.022	-10.933	0.000
K5E1D\$1	-1.534	0.034	-44.857	0.000
K5E1D\$2	-1.247	0.029	-42.699	0.000
K5E1D\$3	-1.014	0.026	-38.451	0.000
K5E1D\$4	-0.638	0.023	-27.182	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	0.704	0.016	43.031	0.000
	K5E1B	0.634	0.017	37.244	0.000
	K5E1C	0.750	0.016	48.073	0.000
	K5E1D	0.699	0.019	37.699	0.000

Thresholds				
K5E1A\$1	-1.306	0.030	-43.259	0.000
K5E1A\$2	-0.902	0.025	-35.491	0.000
K5E1A\$3	-0.632	0.024	-26.859	0.000
K5E1A\$4	-0.225	0.022	-10.195	0.000
K5E1B\$1	-1.130	0.028	-40.803	0.000
K5E1B\$2	-0.728	0.024	-30.290	0.000
K5E1B\$3	-0.430	0.023	-19.053	0.000
K5E1B\$4	0.030	0.022	1.374	0.169
K5E1C\$1	-1.327	0.030	-43.729	0.000
K5E1C\$2	-0.977	0.026	-37.643	0.000
K5E1C\$3	-0.678	0.024	-28.651	0.000
K5E1C\$4	-0.240	0.022	-10.933	0.000
K5E1D\$1	-1.534	0.034	-44.857	0.000
K5E1D\$2	-1.247	0.029	-42.699	0.000
K5E1D\$3	-1.014	0.026	-38.451	0.000
K5E1D\$4	-0.638	0.023	-27.182	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		0.704	0.016	43.031	0.000
K5E1B		0.634	0.017	37.244	0.000
K5E1C		0.750	0.016	48.073	0.000
K5E1D		0.699	0.019	37.699	0.000

Thresholds					
K5E1A\$1	-1.306	0.030	-43.259	0.000	
K5E1A\$2	-0.902	0.025	-35.491	0.000	
K5E1A\$3	-0.632	0.024	-26.859	0.000	
K5E1A\$4	-0.225	0.022	-10.195	0.000	
K5E1B\$1	-1.130	0.028	-40.803	0.000	
K5E1B\$2	-0.728	0.024	-30.290	0.000	
K5E1B\$3	-0.430	0.023	-19.053	0.000	
K5E1B\$4	0.030	0.022	1.374	0.169	
K5E1C\$1	-1.327	0.030	-43.729	0.000	
K5E1C\$2	-0.977	0.026	-37.643	0.000	
K5E1C\$3	-0.678	0.024	-28.651	0.000	
K5E1C\$4	-0.240	0.022	-10.933	0.000	
K5E1D\$1	-1.534	0.034	-44.857	0.000	
K5E1D\$2	-1.247	0.029	-42.699	0.000	
K5E1D\$3	-1.014	0.026	-38.451	0.000	
K5E1D\$4	-0.638	0.023	-27.182	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 0.505	0.495	0.023	21.515	0.000
K5E1B 0.598	0.402	0.022	18.622	0.000
K5E1C 0.437	0.563	0.023	24.037	0.000
K5E1D 0.511	0.489	0.026	18.850	0.000

#### QUALITY OF NUMERICAL RESULTS

Condition Number for the Information Matrix  
0.981E-01

(ratio of smallest to largest eigenvalue)

#### MODEL MODIFICATION INDICES

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

E.P.C.		M.I.	E.P.C.	Std E.P.C.	StdYX
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#### ON Statements

K5E1A	ON K5E1B	35.196	0.124	0.124
0.124				
K5E1A	ON K5E1C	13.527	-0.097	-0.097
-0.097				
K5E1B	ON K5E1A	35.195	0.124	0.124
0.124				
K5E1B	ON K5E1D	13.525	-0.081	-0.081
-0.081				
K5E1C	ON K5E1A	13.522	-0.097	-0.097
-0.097				
K5E1C	ON K5E1D	35.218	0.146	0.146
0.146				
K5E1D	ON K5E1B	13.519	-0.081	-0.081
-0.081				
K5E1D	ON K5E1C	35.222	0.146	0.146
0.146				

#### WITH Statements

K5E1B	WITH K5E1A	35.199	0.124	0.124
0.226				
K5E1C	WITH K5E1A	13.524	-0.097	-0.097
-0.206				
K5E1D	WITH K5E1B	13.522	-0.081	-0.081
-0.147				
K5E1D	WITH K5E1C	35.215	0.146	0.146
0.310				

#### SAMPLE STATISTICS FOR ESTIMATED FACTOR SCORES

#### SAMPLE STATISTICS

Means	
SC9	SC9_SE
_____	_____

-0.049            0.561

Covariances

	SC9	SC9_SE
SC9	0.596	
SC9_SE	0.052	0.007

Correlations

	SC9	SC9_SE
SC9	1.000	
SC9_SE	0.803	1.000

SAVEDATA INFORMATION

Save file

CFA\_FactorScores\_SC9\_080520.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

Save file format

6F10.3 I6

Save file record length    10000

Beginning Time: 12:44:50

Ending Time: 12:44:50

Elapsed Time: 00:00:00

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