ภาคผนวก จ

ดัชนีการทำหน้าที่ต่างกันของมาตรวัดมาตรวัดวัดสมรรถนะครูปฐมวัยของศูนย์พัฒนาเด็กเล็ก

ผลการวิเคราะห์ดัชนีการทำหน้าที่ต่างกันของมาตรวัดมาตรวัดวัดสมรรถนะครูปฐมวัยของศูนย์พัฒนาเด็กเล็กด้านจิตเชี่ยวชาญ (เสนอเฉพาะส่วนสำคัญ)

```
Mplus VERSION 5.21
MUTHEN & MUTHEN
03/10/2013  12:06 PM
INPUT INSTRUCTIONS
  Title:
      Confrim Factor Analysis With Mplus
  Data:
      File is DI_DIF.dat;
  Variable:
       Names are ARE TIME DI3 DI6 DI7 DI8 DI9 DI10  DI12 DI13
                  DI14  DI15  DI16 DI18 DI20 DI22;
       Usevariables are TIME DI3 DI6 DI7 DI8 DI9 DI10  DI12 DI13
                  DI14  DI15  DI16 DI18 DI20 DI22;
       categorical are DI3 DI6 DI7 DI8 DI9 DI10  DI12 DI13
                  DI14  DI15  DI16 DI18 DI20 DI22;
   Analysis:
       estimator =wlsmv;
   Model:
       DIS by DI3 DI6 DI7 DI8 DI9 DI10  DI12 DI13
                  DI14  DI15  DI16 DI18 DI20 DI22;
       DIS on TIME;
       DI3 DI6 DI7 DI8 DI9 DI10  DI12 DI13 DI14  DI15  DI16 DI18 DI20 DI22 on
TIME@0;
   Output:
       Sampstat Standardized res MODINDICES(10);
INPUT READING TERMINATED NORMALLY
Confrim Factor Analysis With Mplus
SUMMARY OF ANALYSIS
Number of groups                                 1
Number of observations                         772
Number of dependent variables                   14
```

Number of independent variables 1
Number of continuous latent variables 1
Observed dependent variables
Binary and ordered categorical (ordinal)
DI3 DI6 DI7 DI8 DI9 DI10
DI12 DI13 DI14 DI15 DI16 DI18
DI20 DI22
Observed independent variables
TIME
Continuous latent variables
DIS
Estimator WLSMV
Maximum number of iterations 1000
Convergence criterion 0.500D-04
Maximum number of steepest descent iterations 20
Parameterization DELTA
Input data file(s)
DI_DIF.dat
Input data format FREE

ESTIMATED SAMPLE STATISTICS

MEANS/INTERCEPTS/THRESHOLDS

	DI3$1	DI3$2	DI3$3	DI6$1	DI6$2
1	0.671	3.072	4.806	1.760	3.613

MEANS/INTERCEPTS/THRESHOLDS

	DI7$1	DI7$2	DI7$3	DI8$1	DI8$2
1	-0.023	1.701	3.377	0.445	2.065

MEANS/INTERCEPTS/THRESHOLDS

	DI8$3	DI9$1	DI9$2	DI9$3	DI10$1
1	3.661	-0.251	1.357	3.110	0.085

MEANS/INTERCEPTS/THRESHOLDS

	DI10$2	DI10$3	DI12$1	DI12$2	DI13$1
1	1.763	3.513	2.197	3.941	0.552

MEANS/INTERCEPTS/THRESHOLDS

	DI13$2	DI13$3	DI14$1	DI14$2	DI14$3
1	2.151	4.060	0.320	2.002	3.814

MEANS/INTERCEPTS/THRESHOLDS

	DI15$1	DI15$2	DI15$3	DI16$1	DI16$2
1	-0.059	1.669	3.425	-0.564	0.898

MEANS/INTERCEPTS/THRESHOLDS

	DI16$3	DI18$1	DI18$2	DI20$1	DI20$2
1	2.430	1.066	2.979	1.560	3.372

MEANS/INTERCEPTS/THRESHOLDS

	DI22$1
1	0.427

SLOPES

	TIME
DI3	1.124
DI6	0.903
DI7	0.794
DI8	0.898
DI9	0.709
DI10	0.801
DI12	0.907
DI13	0.924
DI14	0.874
DI15	0.763
DI16	0.544

DI18	0.669				
DI20	0.757				
DI22	-0.023				

CORRELATION MATRIX (WITH VARIANCES ON THE DIAGONAL)

	DI3	DI6	DI7	DI8	DI9
DI3					
DI6	0.594				
DI7	0.486	0.765			
DI8	0.445	0.699	0.778		
DI9	0.431	0.522	0.623	0.689	
DI10	0.495	0.515	0.607	0.625	0.650
DI12	0.466	0.578	0.631	0.600	0.660
DI13	0.391	0.532	0.546	0.613	0.602
DI14	0.416	0.552	0.637	0.629	0.598
DI15	0.409	0.406	0.535	0.519	0.608
DI16	0.357	0.412	0.452	0.435	0.427
DI18	0.427	0.428	0.489	0.504	0.481
DI20	0.431	0.424	0.410	0.437	0.391
DI22	0.034	-0.040	-0.013	0.009	0.061

CORRELATION MATRIX (WITH VARIANCES ON THE DIAGONAL)

	DI10	DI12	DI13	DI14	DI15
DI12	0.688				
DI13	0.656	0.738			
DI14	0.617	0.684	0.724		
DI15	0.507	0.677	0.625	0.750	
DI16	0.426	0.514	0.491	0.513	0.445
DI18	0.506	0.592	0.556	0.644	0.549
DI20	0.415	0.608	0.494	0.490	0.513
DI22	0.022	0.062	0.039	0.137	-0.009

CORRELATION MATRIX (WITH VARIANCES ON THE DIAGONAL)

	DI16	DI18	DI20	DI22

DI18	0.587			
DI20	0.536	0.634		
DI22	0.084	0.122	-0.004	

THE MODEL ESTIMATION TERMINATED NORMALLY

TESTS OF MODEL FIT

Chi-Square Test of Model Fit

Value	493.123*
Degrees of Freedom	52**
P-Value	0.0000

* The chi-square value for MLM, MLMV, MLR, ULSMV, WLSM and WLSMV cannot be used for chi-square difference tests. MLM, MLR and WLSM chi-square difference testing is described in the Mplus Technical Appendices at www.statmodel.com. See chi-square difference testing in the index of the Mplus User's Guide.

** The degrees of freedom for MLMV, ULSMV and WLSMV are estimated according to a formula given in the Mplus Technical Appendices at www.statmodel.com. See degrees of freedom in the index of the Mplus User's Guide.

Chi-Square Test of Model Fit for the Baseline Model

Value	5021.864
Degrees of Freedom	19
P-Value	0.0000

CFI/TLI

CFI	0.912
TLI	0.968

Number of Free Parameters 51

RMSEA (Root Mean Square Error Of Approximation)

Estimate	0.105

WRMR (Weighted Root Mean Square Residual)

Value	1.835

MODEL MODIFICATION INDICES

NOTE: Modification indices for direct effects of observed dependent variables

regressed on covariates and residual covariances among observed dependent variables may not be included. To include these, request MODINDICES (ALL).

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

		M.I.	E.P.C.	Std E.P.C.	StdYX E.P.C.
ON/BY Statements					
DI3	ON DIS /				
DIS	BY DI3	999.000	0.000	0.000	0.000
ON Statements					
DIS	ON DI3	59.590	-0.295	-0.388	-0.424
DI3	ON DI3	999.000	0.000	0.000	0.000
DI6	ON DI7	55.971	0.214	0.214	0.218
DI6	ON DI8	13.376	0.112	0.112	0.114
DI6	ON DI15	17.044	-0.185	-0.185	-0.185
DI7	ON DI6	55.971	0.214	0.214	0.211
DI7	ON DI8	40.635	0.173	0.173	0.173
DI7	ON DI13	11.220	-0.123	-0.123	-0.123
DI7	ON DI20	12.593	-0.137	-0.137	-0.131
DI8	ON DI6	13.373	0.112	0.112	0.110
DI8	ON DI7	40.629	0.173	0.173	0.173
DI8	ON DI9	11.169	0.100	0.100	0.098
DI9	ON DI8	11.169	0.100	0.100	0.101
DI13	ON DI7	11.222	-0.123	-0.123	-0.123
DI14	ON DI15	34.204	0.161	0.161	0.157
DI15	ON DI6	17.041	-0.185	-0.185	-0.185
DI15	ON DI14	34.209	0.161	0.161	0.165
DI16	ON DI18	30.342	0.168	0.168	0.172
DI16	ON DI20	23.290	0.151	0.151	0.152
DI18	ON DI16	30.346	0.168	0.168	0.163
DI18	ON DI20	48.990	0.200	0.200	0.196
DI20	ON DI7	12.597	-0.137	-0.137	-0.144
DI20	ON DI16	23.291	0.151	0.151	0.149
DI20	ON DI18	48.987	0.200	0.200	0.203
DI3	ON TIME	59.762	0.516	0.516	0.312

WITH Statements

DI3	WITH DIS	59.591	-0.295	-0.477	-0.607
DI7	WITH DI6	55.972	0.214	0.214	0.561
DI8	WITH DI6	13.377	0.112	0.112	0.293
DI8	WITH DI7	40.636	0.173	0.173	0.506
DI9	WITH DI8	11.173	0.100	0.100	0.259
DI13	WITH DI7	11.219	-0.123	-0.123	-0.352
DI15	WITH DI6	17.043	-0.185	-0.185	-0.434
DI15	WITH DI14	34.207	0.161	0.161	0.449
DI18	WITH DI16	30.348	0.168	0.168	0.309
DI20	WITH DI7	12.593	-0.137	-0.137	-0.311
DI20	WITH DI16	23.295	0.151	0.151	0.255
DI20	WITH DI18	48.993	0.200	0.200	0.381

Beginning Time: 12:06:48

Ending Time: 12:06:50

Elapsed Time: 00:00:02

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Mplus VERSION 5.21
MUTHEN & MUTHEN
03/10/2013  12:18 PM
INPUT INSTRUCTIONS
  Title:
      Confrim Factor Analysis With Mplus
  Data:
      File is SY_DIF.dat;
  Variable:
       Names are ARE TIME SY1 SY2 SY3  SY4  SY5  SY6  SY7  SY8  SY9  SY13;
        Usevariables are TIME SY1 SY2 SY3  SY4  SY5  SY6  SY7  SY8  SY9  SY13;
        categorical are SY1 SY2 SY3  SY4  SY5  SY6  SY7  SY8  SY9  SY13;
    Analysis:
        estimator =wlsmv;
    Model:
        SYS by SY1 SY2 SY3  SY4  SY5  SY6  SY7  SY8  SY9  SY13;
        SYS on TIME;
        SY1 SY2 SY3  SY4  SY5  SY6  SY7  SY8  SY9  SY13 on TIME@0;
   Output:
      Sampstat Standardized res MODINDICES(10);
INPUT READING TERMINATED NORMALLY
```

Confrim Factor Analysis With Mplus

SUMMARY OF ANALYSIS

Number of groups	1
Number of observations	772
Number of dependent variables	10
Number of independent variables	1
Number of continuous latent variables	1

Observed dependent variables

Binary and ordered categorical (ordinal)

SY1 SY2 SY3 SY4 SY5 SY6

SY7 SY8 SY9 SY13

Observed independent variables

TIME

Continuous latent variables

SYS

Estimator	WLSMV
Maximum number of iterations	1000
Convergence criterion	0.500D-04
Maximum number of steepest descent iterations	20
Parameterization	DELTA

Input data file(s)

SY_DIF.dat

Input data format FREE

CORRELATION MATRIX (WITH VARIANCES ON THE DIAGONAL)

	SY1	SY2	SY3	SY4	SY5
SY1					
SY2	0.503				
SY3	0.549	0.519			
SY4	0.385	0.476	0.615		
SY5	0.515	0.552	0.583	0.613	
SY6	0.468	0.466	0.418	0.449	0.610

SY7	0.455	0.491	0.501	0.557	0.641
SY8	0.433	0.562	0.501	0.521	0.621
SY9	0.390	0.365	0.450	0.478	0.528
SY13	-0.048	-0.087	0.032	0.027	0.095

CORRELATION MATRIX (WITH VARIANCES ON THE DIAGONAL)

	SY6	SY7	SY8	SY9	SY13
SY7	0.676				
SY8	0.632	0.751			
SY9	0.457	0.591	0.539		
SY13	0.035	0.065	0.100	0.066	

THE MODEL ESTIMATION TERMINATED NORMALLY

TESTS OF MODEL FIT

Chi-Square Test of Model Fit

Value	222.255*
Degrees of Freedom	30**
P-Value	0.0000

* The chi-square value for MLM, MLMV, MLR, ULSMV, WLSM and WLSMV cannot be used
for chi-square difference tests. MLM, MLR and WLSM chi-square difference testing is described in the Mplus Technical Appendices at www.statmodel.com. See chi-square difference testing in the index of the Mplus User's Guide.

** The degrees of freedom for MLMV, ULSMV and WLSMV are estimated according to a formula given in the Mplus Technical Appendices at www.statmodel.com. See degrees of freedom in the index of the Mplus User's Guide.

Chi-Square Test of Model Fit for the Baseline Model

Value	4687.644
Degrees of Freedom	21
P-Value	0.0000

CFI/TLI

CFI	0.959
TLI	0.971

Number of Free Parameters 35

RMSEA (Root Mean Square Error Of Approximation)

Estimate 0.091

WRMR (Weighted Root Mean Square Residual)

Value 1.627

MODEL MODIFICATION INDICES

NOTE: Modification indices for direct effects of observed dependent variables regressed on covariates and residual covariances among observed dependent variables may not be included. To include these, request MODINDICES (ALL).

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

		M.I.	E.P.C.	Std E.P.C.	StdYX E.P.C.
ON Statements					
SYS	ON SY1	79.677	-0.360	-0.387	-0.458
SYS	ON SY2	12.415	-0.122	-0.131	-0.156
SYS	ON SY8	14.330	0.130	0.139	0.174
SY1	ON SY8	10.180	-0.143	-0.143	-0.150
SY3	ON SY4	17.385	0.152	0.152	0.153
SY4	ON SY3	17.386	0.152	0.152	0.152
SY6	ON SY7	11.661	0.110	0.110	0.115
SY7	ON SY6	11.660	0.110	0.110	0.105
SY7	ON SY8	24.438	0.147	0.147	0.146
SY8	ON SY1	10.179	-0.143	-0.143	-0.136
SY8	ON SY7	24.439	0.147	0.147	0.149
SY1	ON TIME	79.673	0.852	0.852	0.412
SY2	ON TIME	12.415	0.289	0.289	0.140
SY8	ON TIME	14.331	-0.307	-0.307	-0.141
WITH Statements					
SY1	WITH SYS	79.676	-0.360	-0.527	-0.722
SY2	WITH SYS	12.415	-0.122	-0.179	-0.246
SY4	WITH SY3	17.385	0.152	0.152	0.301
SY7	WITH SY6	11.661	0.110	0.110	0.286
SY8	WITH SYS	14.331	0.130	0.190	0.319
SY8	WITH SY1	10.179	-0.143	-0.143	-0.329

SY8 WITH SY7 24.439 0.147 0.147 0.446

Beginning Time: 12:18:53

Ending Time: 12:18:54

Elapsed Time: 00:00:01

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Mplus VERSION 5.21

MUTHEN & MUTHEN

03/10/2013 3:17 PM

```
INPUT INSTRUCTIONS
  Title:
      Confrim Factor Analysis With Mplus
  Data:
      File is CR_DIF.dat;
  Variable:
       Names ARE TIME s01 s02 s03 s04 s05 s06 s07
        s08 s09 s10 s11 s12;

        Usevariables are TIME s01 - s12;
        categorical are s01-s12;
   Analysis:
        estimator =wlsmv;

   Model:
        F1 by s01-s12;
        F1 on TIME;
        s01 on TIME;
        S02 on TIME;
        s08 on TIME;
        s03- s07 s09-s12 on TIME@0;
  Output:
      Sampstat Standardized res MODINDICES(10);


INPUT READING TERMINATED NORMALLY
Confrim Factor Analysis With Mplus
SUMMARY OF ANALYSIS
Number of groups                                 1
Number of observations                        1544
Number of dependent variables                   12
Number of independent variables                  1
Number of continuous latent variables            1
```

Observed dependent variables

Binary and ordered categorical (ordinal)

S01 S02 S03 S04 S05 S06

S07 S08 S09 S10 S11 S12

Observed independent variables

TIME

Continuous latent variables

F1

Estimator WLSMV

Maximum number of iterations 1000

Convergence criterion 0.500D-04

Maximum number of steepest descent iterations 20

Parameterization DELTA

Input data file(s)

CR_DIF.dat

Input data format FREE

THE MODEL ESTIMATION TERMINATED NORMALLY

TESTS OF MODEL FIT

Chi-Square Test of Model Fit

Value 1667.652*

Degrees of Freedom 36**

P-Value 0.0000

* The chi-square value for MLM, MLMV, MLR, ULSMV, WLSM and WLSMV cannot be used

for chi-square difference tests. MLM, MLR and WLSM chi-square difference

testing is described in the Mplus Technical Appendices at www.statmodel.com.

See chi-square difference testing in the index of the Mplus User's Guide.

** The degrees of freedom for MLMV, ULSMV and WLSMV are estimated according to

a formula given in the Mplus Technical Appendices at www.statmodel.com.

See degrees of freedom in the index of the Mplus User's Guide.

Chi-Square Test of Model Fit for the Baseline Model

Value 14733.970

Degrees of Freedom 12

P-Value 0.0000

CFI/TLI

CFI 0.889

TLI 0.963

Number of Free Parameters 58

RMSEA (Root Mean Square Error Of Approximation)

Estimate 0.171

WRMR (Weighted Root Mean Square Residual)

Value 3.262

STANDARDIZED MODEL RESULTS

	StdYX Estimate	Std Estimate
F1 BY		
S01	0.766	0.767
S02	0.767	0.767
S03	0.830	0.830
S04	0.817	0.817
S05	0.846	0.846
S06	0.792	0.792
S07	0.775	0.775
S08	0.806	0.806
S09	0.809	0.809
S10	0.725	0.725
S11	0.719	0.719
S12	0.781	0.781
F1 ON		
TIME	0.008	0.018
S01 ON		
TIME	0.013	0.028
S02 ON		

TIME	0.005	0.011	
S08 ON			
TIME	0.015	0.033	

MODEL MODIFICATION INDICES

NOTE: Modification indices for direct effects of observed dependent variables regressed on covariates and residual covariances among observed dependent variables may not be included. To include these, request MODINDICES (ALL).

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

		M.I.	E.P.C.	Std E.P.C.	StdYX E.P.C.
ON Statements					
S01	ON S02	93.747	0.130	0.130	0.130
S01	ON S03	64.428	0.109	0.109	0.109
S01	ON S08	13.209	-0.060	-0.060	-0.060
S01	ON S09	19.167	-0.074	-0.074	-0.074
S01	ON S11	14.368	-0.069	-0.069	-0.069
S01	ON S12	20.976	-0.078	-0.078	-0.078
S02	ON S01	93.742	0.130	0.130	0.130
S02	ON S03	87.221	0.129	0.129	0.129
S02	ON S06	12.304	-0.065	-0.065	-0.065
S02	ON S08	19.819	-0.083	-0.083	-0.083
S02	ON S09	12.618	-0.065	-0.065	-0.065
S02	ON S10	29.166	-0.103	-0.103	-0.103
S02	ON S11	12.556	-0.064	-0.064	-0.064
S02	ON S12	14.525	-0.070	-0.070	-0.070
S03	ON S01	64.424	0.109	0.109	0.109
S03	ON S02	87.220	0.129	0.129	0.129
S03	ON S07	20.521	-0.072	-0.072	-0.072
S03	ON S08	20.101	-0.077	-0.077	-0.078
S03	ON S09	32.608	-0.105	-0.105	-0.105
S03	ON S10	32.590	-0.112	-0.112	-0.112
S03	ON S11	28.954	-0.088	-0.088	-0.088

S04	ON S05	228.263	0.183	0.183	0.183
S04	ON S09	76.208	-0.153	-0.153	-0.153
S04	ON S10	78.393	-0.166	-0.166	-0.166
S05	ON S04	228.261	0.183	0.183	0.183
S05	ON S06	11.734	0.050	0.050	0.050
S05	ON S08	15.231	-0.065	-0.065	-0.065
S05	ON S09	65.162	-0.149	-0.149	-0.149
S05	ON S10	81.688	-0.165	-0.165	-0.165
S05	ON S11	23.376	-0.078	-0.078	-0.078
S06	ON S02	12.331	-0.065	-0.065	-0.065
S06	ON S05	11.736	0.050	0.050	0.050
S06	ON S07	71.465	0.112	0.112	0.112
S06	ON S09	29.672	-0.097	-0.097	-0.097
S06	ON S10	22.842	-0.086	-0.086	-0.086
S07	ON S03	20.522	-0.072	-0.072	-0.072
S07	ON S06	71.464	0.112	0.112	0.112
S07	ON S08	33.166	0.086	0.086	0.086
S07	ON S10	15.231	-0.071	-0.071	-0.071
S07	ON S12	10.039	-0.049	-0.049	-0.049
S08	ON S01	13.209	-0.060	-0.060	-0.060
S08	ON S02	19.817	-0.083	-0.083	-0.083
S08	ON S03	20.102	-0.077	-0.077	-0.077
S08	ON S05	15.227	-0.065	-0.065	-0.065
S08	ON S07	33.126	0.086	0.086	0.086
S08	ON S09	43.274	0.091	0.091	0.091
S09	ON S01	19.140	-0.074	-0.074	-0.074
S09	ON S02	12.608	-0.065	-0.065	-0.065
S09	ON S03	32.605	-0.105	-0.105	-0.105
S09	ON S04	76.199	-0.153	-0.153	-0.153
S09	ON S05	65.151	-0.149	-0.149	-0.149
S09	ON S06	29.670	-0.097	-0.097	-0.097
S09	ON S08	43.310	0.091	0.091	0.091
S09	ON S10	556.968	0.290	0.290	0.290

S10	ON S02	29.133	-0.103	-0.103	-0.103
S10	ON S03	32.587	-0.112	-0.112	-0.112
S10	ON S04	78.385	-0.166	-0.166	-0.166
S10	ON S05	81.678	-0.165	-0.165	-0.165
S10	ON S06	22.840	-0.086	-0.086	-0.086
S10	ON S07	15.228	-0.071	-0.071	-0.071
S10	ON S09	556.967	0.290	0.290	0.290
S11	ON S01	14.406	-0.069	-0.069	-0.069
S11	ON S02	12.570	-0.064	-0.064	-0.064
S11	ON S03	28.955	-0.088	-0.088	-0.088
S11	ON S05	23.375	-0.078	-0.078	-0.078
S11	ON S12	225.493	0.189	0.189	0.189
S12	ON S01	21.039	-0.078	-0.078	-0.078
S12	ON S02	14.545	-0.070	-0.070	-0.070
S12	ON S07	10.037	-0.049	-0.049	-0.049
S12	ON S11	225.500	0.189	0.189	0.189
WITH Statements					
S02	WITH S01	93.742	0.130	0.130	0.315
S03	WITH S01	64.423	0.109	0.109	0.305
S03	WITH S02	87.220	0.129	0.129	0.362
S05	WITH S04	228.270	0.183	0.183	0.597
S06	WITH S02	12.304	-0.065	-0.065	-0.167
S06	WITH S05	11.737	0.050	0.050	0.153
S07	WITH S03	20.520	-0.072	-0.072	-0.203
S07	WITH S06	71.466	0.112	0.112	0.291
S08	WITH S01	13.211	-0.060	-0.060	-0.158
S08	WITH S02	19.820	-0.083	-0.083	-0.220
S08	WITH S03	20.106	-0.077	-0.077	-0.235
S08	WITH S05	15.230	-0.065	-0.065	-0.207
S08	WITH S07	33.123	0.086	0.086	0.230
S09	WITH S01	19.170	-0.074	-0.074	-0.195
S09	WITH S02	12.619	-0.065	-0.065	-0.172
S09	WITH S03	32.607	-0.105	-0.105	-0.321

S09	WITH S04	76.202	-0.153	-0.153	-0.451
S09	WITH S05	65.155	-0.149	-0.149	-0.474
S09	WITH S06	29.672	-0.097	-0.097	-0.270
S09	WITH S08	43.271	0.091	0.091	0.260
S10	WITH S02	29.166	-0.103	-0.103	-0.234
S10	WITH S03	32.589	-0.112	-0.112	-0.292
S10	WITH S04	78.388	-0.166	-0.166	-0.418
S10	WITH S05	81.681	-0.165	-0.165	-0.449
S10	WITH S06	22.842	-0.086	-0.086	-0.205
S10	WITH S07	15.229	-0.071	-0.071	-0.162
S10	WITH S09	556.962	0.290	0.290	0.716
S11	WITH S01	14.371	-0.069	-0.069	-0.154
S11	WITH S02	12.557	-0.064	-0.064	-0.144
S11	WITH S03	28.954	-0.088	-0.088	-0.227
S11	WITH S05	23.373	-0.078	-0.078	-0.210
S12	WITH S01	20.979	-0.078	-0.078	-0.195
S12	WITH S02	14.525	-0.070	-0.070	-0.175
S12	WITH S07	10.038	-0.049	-0.049	-0.125
S12	WITH S11	225.497	0.189	0.189	0.435

Beginning Time: 15:17:14

Ending Time: 15:17:15

Elapsed Time: 00:00:01

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ผลการวิเคราะห์ดัชนีการทำหน้าที่ต่างกันของมาตรวัดมาตรวัดวัดสมรรถนะครูปฐมวัยของศูนย์พัฒนาเด็กเล็กด้านจิตรู้เคารพ (เสนอเฉพาะส่วนสำคัญ)

```
Mplus VERSION 5.21
MUTHEN & MUTHEN
03/10/2013   1:12 PM
INPUT INSTRUCTIONS
  Title:
      Confrim Factor Analysis With Mplus
  Data:
      File is RE_DIF.dat;
  Variable:
       Names are ARE TIME RE1 RE2 RE3 RE4 RE5 RE6
       RE7 RE8 RE9 RE10 RE11 RE12 RE13 RE14;
        Usevariables are TIME RE1 - RE14;
        categorical are RE1-RE14;
   Analysis:
        estimator =wlsmv;
   Model:
        RES by RE1-RE14;
        RES on TIME;
        RE1 - RE14 on TIME@0;
  Output:
      Sampstat Standardized res MODINDICES(10);
INPUT READING TERMINATED NORMALLY
Confrim Factor Analysis With Mplus
SUMMARY OF ANALYSIS
Number of groups                                 1
Number of observations                        1544
Number of dependent variables                   14
```

Number of independent variables 1
Number of continuous latent variables 1
Observed dependent variables
Binary and ordered categorical (ordinal)
RE1 RE2 RE3 RE4 RE5 RE6
RE7 RE8 RE9 RE10 RE11 RE12
RE13 RE14
Observed independent variables
TIME
Continuous latent variables
RES
Estimator WLSMV
Maximum number of iterations 1000
Convergence criterion 0.500D-04
Maximum number of steepest descent iterations 20
Parameterization DELTA
Input data file(s)
RE_DIF.dat
Input data format FREE

SLOPES

	TIME
RE1	1.276
RE2	1.369
RE3	1.063
RE4	1.126
RE5	1.045
RE6	0.938
RE7	0.963
RE8	0.932
RE9	0.839
RE10	0.790
RE11	0.875

RE12	0.981				
RE13	0.931				
RE14	0.906				

CORRELATION MATRIX (WITH VARIANCES ON THE DIAGONAL)

	RE1	RE2	RE3	RE4	RE5
RE1					
RE2	0.541				
RE3	0.456	0.547			
RE4	0.412	0.548	0.714		
RE5	0.316	0.437	0.493	0.572	
RE6	0.369	0.387	0.467	0.544	0.584
RE7	0.329	0.405	0.463	0.473	0.497
RE8	0.371	0.381	0.355	0.379	0.394
RE9	0.253	0.295	0.258	0.284	0.334
RE10	0.319	0.353	0.420	0.404	0.404
RE11	0.348	0.483	0.459	0.496	0.504
RE12	0.297	0.377	0.430	0.403	0.403
RE13	0.298	0.391	0.423	0.431	0.421
RE14	0.309	0.446	0.453	0.425	0.392

CORRELATION MATRIX (WITH VARIANCES ON THE DIAGONAL)

	RE6	RE7	RE8	RE9	RE10
RE7	0.586				
RE8	0.470	0.620			
RE9	0.353	0.487	0.712		
RE10	0.415	0.495	0.484	0.439	
RE11	0.429	0.521	0.477	0.448	0.628
RE12	0.443	0.472	0.377	0.381	0.438
RE13	0.387	0.401	0.448	0.360	0.400
RE14	0.432	0.510	0.433	0.349	0.417

CORRELATION MATRIX (WITH VARIANCES ON THE DIAGONAL)

	RE11	RE12	RE13	RE14

RE12	0.506			
RE13	0.515	0.721		
RE14	0.528	0.592	0.648	

THE MODEL ESTIMATION TERMINATED NORMALLY

TESTS OF MODEL FIT

Chi-Square Test of Model Fit

Value	2193.430*
Degrees of Freedom	54**
P-Value	0.0000

* The chi-square value for MLM, MLMV, MLR, ULSMV, WLSM and WLSMV cannot be used for chi-square difference tests. MLM, MLR and WLSM chi-square difference testing is described in the Mplus Technical Appendices at www.statmodel.com. See chi-square difference testing in the index of the Mplus User's Guide.

** The degrees of freedom for MLMV, ULSMV and WLSMV are estimated according to a formula given in the Mplus Technical Appendices at www.statmodel.com. See degrees of freedom in the index of the Mplus User's Guide.

Chi-Square Test of Model Fit for the Baseline Model

Value	12729.945
Degrees of Freedom	24
P-Value	0.0000

CFI/TLI

CFI	0.832
TLI	0.925

Number of Free Parameters 66

RMSEA (Root Mean Square Error Of Approximation)

Estimate	0.160

WRMR (Weighted Root Mean Square Residual)

Value	3.804

MODEL MODIFICATION INDICES

NOTE: Modification indices for direct effects of observed dependent variables

regressed on covariates and residual covariances among observed dependent variables may not be included. To include these, request MODINDICES (ALL).

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

		M.I.	E.P.C.	Std E.P.C.	StdYX E.P.C.
ON Statements					
RES	ON RE1	124.366	-0.206	-0.268	-0.301
RES	ON RE2	101.079	-0.187	-0.243	-0.283
RES	ON RE10	11.930	0.068	0.088	0.102
RES	ON RE11	20.110	0.084	0.110	0.131
RE1	ON RE2	82.279	0.191	0.191	0.198
RE1	ON RE9	13.622	-0.111	-0.111	-0.113
RE1	ON RE12	16.263	-0.120	-0.120	-0.126
RE1	ON RE13	21.594	-0.127	-0.127	-0.134
RE1	ON RE14	11.479	-0.098	-0.098	-0.103
RE2	ON RE1	82.270	0.191	0.191	0.184
RE2	ON RE3	10.317	0.074	0.074	0.076
RE2	ON RE6	12.754	-0.080	-0.080	-0.081
RE2	ON RE7	10.176	-0.089	-0.089	-0.091
RE2	ON RE8	15.078	-0.112	-0.112	-0.114
RE2	ON RE9	19.110	-0.131	-0.131	-0.129
RE2	ON RE10	15.005	-0.093	-0.093	-0.092
RE2	ON RE12	16.167	-0.111	-0.111	-0.112
RE2	ON RE13	12.774	-0.100	-0.100	-0.102
RE3	ON RE2	10.320	0.074	0.074	0.073
RE3	ON RE4	292.326	0.273	0.273	0.277
RE3	ON RE8	53.343	-0.188	-0.188	-0.187
RE3	ON RE9	56.383	-0.210	-0.210	-0.201
RE3	ON RE11	13.695	-0.080	-0.080	-0.081
RE3	ON RE12	13.652	-0.094	-0.094	-0.094
RE3	ON RE13	18.949	-0.110	-0.110	-0.110
RE4	ON RE3	292.306	0.273	0.273	0.270
RE4	ON RE5	12.387	0.075	0.075	0.073
RE4	ON RE7	11.443	-0.085	-0.085	-0.084

RE4	ON RE8	46.391	-0.185	-0.185	-0.182
RE4	ON RE9	61.905	-0.207	-0.207	-0.196
RE4	ON RE10	20.620	-0.101	-0.101	-0.097
RE4	ON RE12	27.330	-0.148	-0.148	-0.145
RE4	ON RE13	19.756	-0.124	-0.124	-0.122
RE4	ON RE14	14.147	-0.110	-0.110	-0.107
RE5	ON RE4	12.393	0.075	0.075	0.078
RE5	ON RE6	91.261	0.167	0.167	0.167
RE5	ON RE8	17.085	-0.106	-0.106	-0.108
RE5	ON RE9	15.716	-0.097	-0.097	-0.095
RE5	ON RE12	11.106	-0.087	-0.087	-0.088
RE6	ON RE2	12.756	-0.080	-0.080	-0.080
RE6	ON RE5	91.250	0.167	0.167	0.167
RE6	ON RE7	30.312	0.115	0.115	0.117
RE6	ON RE11	12.975	-0.077	-0.077	-0.079
RE6	ON RE13	15.499	-0.111	-0.111	-0.113
RE7	ON RE2	10.163	-0.089	-0.089	-0.087
RE7	ON RE4	11.427	-0.085	-0.085	-0.086
RE7	ON RE6	30.332	0.115	0.115	0.113
RE7	ON RE8	49.466	0.134	0.134	0.134
RE7	ON RE13	24.899	-0.134	-0.134	-0.134
RE8	ON RE2	15.061	-0.112	-0.112	-0.110
RE8	ON RE3	53.320	-0.188	-0.188	-0.188
RE8	ON RE4	46.355	-0.185	-0.185	-0.188
RE8	ON RE5	17.074	-0.106	-0.106	-0.104
RE8	ON RE7	49.466	0.134	0.134	0.134
RE8	ON RE9	485.051	0.374	0.374	0.359
RE8	ON RE12	29.459	-0.150	-0.150	-0.149
RE9	ON RE1	13.619	-0.111	-0.111	-0.109
RE9	ON RE2	19.098	-0.131	-0.131	-0.134
RE9	ON RE3	56.371	-0.210	-0.210	-0.218
RE9	ON RE4	61.879	-0.207	-0.207	-0.218
RE9	ON RE5	15.711	-0.097	-0.097	-0.099

RE9	ON RE8	485.034	0.374	0.374	0.389
RE9	ON RE13	12.385	-0.094	-0.094	-0.098
RE9	ON RE14	10.603	-0.090	-0.090	-0.092
RE10	ON RE2	14.998	-0.093	-0.093	-0.093
RE10	ON RE4	20.609	-0.101	-0.101	-0.105
RE10	ON RE11	193.603	0.220	0.220	0.227
RE10	ON RE13	11.854	-0.076	-0.076	-0.078
RE11	ON RE3	13.704	-0.080	-0.080	-0.080
RE11	ON RE6	12.979	-0.077	-0.077	-0.076
RE11	ON RE10	193.568	0.220	0.220	0.213
RE12	ON RE1	16.268	-0.120	-0.120	-0.114
RE12	ON RE2	16.167	-0.111	-0.111	-0.109
RE12	ON RE3	13.656	-0.094	-0.094	-0.095
RE12	ON RE4	27.325	-0.148	-0.148	-0.151
RE12	ON RE5	11.110	-0.087	-0.087	-0.086
RE12	ON RE8	29.482	-0.150	-0.150	-0.150
RE12	ON RE13	297.167	0.307	0.307	0.308
RE12	ON RE14	33.152	0.124	0.124	0.123
RE13	ON RE1	21.598	-0.127	-0.127	-0.120
RE13	ON RE2	12.772	-0.100	-0.100	-0.098
RE13	ON RE3	18.951	-0.110	-0.110	-0.110
RE13	ON RE4	19.750	-0.124	-0.124	-0.126
RE13	ON RE6	15.494	-0.111	-0.111	-0.109
RE13	ON RE7	24.917	-0.134	-0.134	-0.134
RE13	ON RE9	12.392	-0.094	-0.094	-0.091
RE13	ON RE10	11.859	-0.076	-0.076	-0.074
RE13	ON RE12	297.172	0.307	0.307	0.306
RE13	ON RE14	116.725	0.203	0.203	0.201
RE14	ON RE1	11.475	-0.098	-0.098	-0.093
RE14	ON RE4	14.131	-0.110	-0.110	-0.113
RE14	ON RE9	10.602	-0.090	-0.090	-0.087
RE14	ON RE12	33.165	0.124	0.124	0.124
RE14	ON RE13	116.744	0.203	0.203	0.205

RE1	ON TIME	124.380	0.522	0.522	0.285
RE2	ON TIME	101.068	0.473	0.473	0.249
RE10	ON TIME	11.919	-0.172	-0.172	-0.091
RE11	ON TIME	20.131	-0.213	-0.213	-0.110
WITH Statements					
RE1	WITH RES	124.374	-0.206	-0.359	-0.438
RE2	WITH RES	101.087	-0.187	-0.325	-0.438
RE2	WITH RE1	82.276	0.191	0.191	0.314
RE3	WITH RE2	10.320	0.074	0.074	0.145
RE4	WITH RE3	292.326	0.273	0.273	0.603
RE5	WITH RE4	12.393	0.075	0.075	0.156
RE6	WITH RE2	12.751	-0.080	-0.080	-0.147
RE6	WITH RE5	91.260	0.167	0.167	0.309
RE7	WITH RE2	10.172	-0.089	-0.089	-0.174
RE7	WITH RE4	11.437	-0.085	-0.085	-0.188
RE7	WITH RE6	30.320	0.115	0.115	0.228
RE8	WITH RE2	15.073	-0.112	-0.112	-0.217
RE8	WITH RE3	53.343	-0.188	-0.188	-0.391
RE8	WITH RE4	46.378	-0.185	-0.185	-0.406
RE8	WITH RE5	17.086	-0.106	-0.106	-0.207
RE8	WITH RE7	49.450	0.134	0.134	0.279
RE9	WITH RE1	13.623	-0.111	-0.111	-0.172
RE9	WITH RE2	19.105	-0.131	-0.131	-0.225
RE9	WITH RE3	56.383	-0.210	-0.210	-0.387
RE9	WITH RE4	61.891	-0.207	-0.207	-0.402
RE9	WITH RE5	15.716	-0.097	-0.097	-0.167
RE9	WITH RE8	485.013	0.374	0.374	0.685
RE10	WITH RES	11.927	0.068	0.118	0.155
RE10	WITH RE2	15.002	-0.093	-0.093	-0.164
RE10	WITH RE4	20.614	-0.101	-0.101	-0.202
RE11	WITH RES	20.106	0.084	0.147	0.214
RE11	WITH RE3	13.694	-0.080	-0.080	-0.170
RE11	WITH RE6	12.969	-0.077	-0.077	-0.153

RE11	WITH RE10	193.593	0.220	0.220	0.421
RE12	WITH RE1	16.264	-0.120	-0.120	-0.207
RE12	WITH RE2	16.163	-0.111	-0.111	-0.211
RE12	WITH RE3	13.652	-0.094	-0.094	-0.193
RE12	WITH RE4	27.319	-0.148	-0.148	-0.320
RE12	WITH RE5	11.106	-0.087	-0.087	-0.168
RE12	WITH RE8	29.477	-0.150	-0.150	-0.305
RE13	WITH RE1	21.596	-0.127	-0.127	-0.222
RE13	WITH RE2	12.770	-0.100	-0.100	-0.194
RE13	WITH RE3	18.949	-0.110	-0.110	-0.229
RE13	WITH RE4	19.747	-0.124	-0.124	-0.272
RE13	WITH RE6	15.491	-0.111	-0.111	-0.217
RE13	WITH RE7	24.914	-0.134	-0.134	-0.278
RE13	WITH RE9	12.390	-0.094	-0.094	-0.172
RE13	WITH RE10	11.857	-0.076	-0.076	-0.143
RE13	WITH RE12	297.179	0.307	0.307	0.624
RE14	WITH RE1	11.480	-0.098	-0.098	-0.166
RE14	WITH RE4	14.140	-0.110	-0.110	-0.233
RE14	WITH RE9	10.608	-0.090	-0.090	-0.159
RE14	WITH RE12	33.157	0.124	0.124	0.243
RE14	WITH RE13	116.730	0.203	0.203	0.405

Beginning Time: 13:12:17

Ending Time: 13:12:20

Elapsed Time: 00:00:03

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Mplus VERSION 5.21

MUTHEN & MUTHEN

03/10/2013 2:25 PM

INPUT INSTRUCTIONS

```
  Title:
      Confrim Factor Analysis With Mplus
  Data:
      File is ET_DIF.dat;
  Variable:
       Names ARE TIME  ET14 ET15 ET16 ET17 ET18;
       Usevariables are TIME ET14 ET15 ET16 ET17 ET18;
       categorical are ET14 ET15 ET16 ET17 ET18;
   Analysis:
       estimator =wlsmv;
   Model:
       ETH by  ET14 ET15 ET16 ET17 ET18;
       ETH on TIME;
       ET14 ET15 ET16 ET17 ET18 on TIME@0;
  Output:
      Sampstat Standardized res MODINDICES(10);
```

INPUT READING TERMINATED NORMALLY

Confrim Factor Analysis With Mplus

SUMMARY OF ANALYSIS

Number of groups 1

Number of observations 1544
Number of dependent variables 5
Number of independent variables 1
Number of continuous latent variables 1
Observed dependent variables
Binary and ordered categorical (ordinal)
ET14 ET15 ET16 ET17 ET18
Observed independent variables
TIME
Continuous latent variables
ETH
Estimator WLSMV
Maximum number of iterations 1000
Convergence criterion 0.500D-04
Maximum number of steepest descent iterations 20
Parameterization DELTA
Input data file(s)
ET_DIF.dat
Input data format FREE
MODEL MODIFICATION INDICES
NOTE: Modification indices for direct effects of observed dependent variables regressed on covariates and residual covariances among observed dependent variables may not be included. To include these, request MODINDICES (ALL).
Minimum M.I. value for printing the modification index 10.000

		M.I.	E.P.C.	Std E.P.C.	StdYX E.P.C.
ON Statements					
ET14	ON ET15	44.026	0.074	0.074	0.074
ET14	ON ET16	32.880	-0.067	-0.067	-0.067
ET15	ON ET14	44.026	0.074	0.074	0.074
ET15	ON ET17	64.365	-0.095	-0.095	-0.095
ET16	ON ET14	32.880	-0.067	-0.067	-0.067
ET16	ON ET17	14.241	0.044	0.044	0.044
ET17	ON ET15	64.366	-0.095	-0.095	-0.095

ET17	ON ET16	14.241	0.044	0.044	0.044
ET17	ON ET18	17.224	0.050	0.050	0.050
ET18	ON ET17	17.224	0.050	0.050	0.050

WITH Statements

ET15	WITH ET14	44.026	0.074	0.074	0.280
ET16	WITH ET14	32.880	-0.067	-0.067	-0.271
ET17	WITH ET15	64.366	-0.095	-0.095	-0.451
ET17	WITH ET16	14.241	0.044	0.044	0.219
ET18	WITH ET17	17.224	0.050	0.050	0.240

Beginning Time: 14:25:23

Ending Time: 14:25:24

Elapsed Time: 00:00:01

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