Mplus VERSION 7.2 (Mac)
MUTHEN & MUTHEN
10/29/2014 10:47 AM

INPUT INSTRUCTIONS

  TITLE: E-loyalty data from BCCDC's SmartSexResource Visitor
Survey;

  DATA: FILE IS ssr_loyalty.dat;
                 FORMAT IS 13F11.0;

  VARIABLE: NAMES ARE type status educ gender rec
        ret overall effe effi lit tru act recp;

        USEVARIABLES ARE type educ gender rec
        ret overall effe effi lit tru act;

        MISSING ARE ALL (999);

        CATEGORICAL ARE educ gender;

  ANALYSIS:

  MODEL: loyalty BY rec ret;
        loyalty ON type overall effe effi lit act tru;
        act ON tru lit;
        loyalty WITH educ;
        loyalty WITH gender;
        educ WITH type;

  OUTPUT: SAMPSTAT STANDARDIZED MODINDICES;

*** WARNING
  Data set contains cases with missing on x-variables.
  These cases were not included in the analysis.
  Number of cases with missing on x-variables: 328
   1 WARNING(S) FOUND IN THE INPUT INSTRUCTIONS

E-loyalty data from BCCDC's SmartSexResource Visitor Survey;

SUMMARY OF ANALYSIS

Number of groups   1
Number of observations   173

Number of dependent variables   5
Number of independent variables   6

```
Number of continuous latent variables                              1

Observed dependent variables

   Continuous
    REC          RET          ACT

   Binary and ordered categorical (ordinal)
    EDUC         GENDER

Observed independent variables
    TYPE         OVERALL      EFFE         EFFI         LIT          TRU

Continuous latent variables
    LOYALTY


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

Input data file(s)
  ssr_loyalty.dat

Input data format
  (13F11.0)


SUMMARY OF DATA

     Number of missing data patterns               8


COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value   0.100


     PROPORTION OF DATA PRESENT


          Covariance Coverage
               TYPE          EDUC          GENDER        REC
RET

               _____      _____      _____      _____
_____
 TYPE          1.000
 EDUC          0.850         0.850
 GENDER        0.746         0.734         0.746
 REC           0.994         0.850         0.746         0.994
```

RET	0.983	0.838	0.734	0.977
0.983				
ACT	0.994	0.844	0.740	0.988
0.977				

Covariance Coverage

	ACT
	_____
ACT	0.994

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

```
    EDUC
      Category 1    0.034        5.000
      Category 2    0.197       29.000
      Category 3    0.544       80.000
      Category 4    0.224       33.000
    GENDER
      Category 1    0.667       86.000
      Category 2    0.333       43.000
```

SAMPLE STATISTICS

ESTIMATED SAMPLE STATISTICS

MEANS/INTERCEPTS/THRESHOLDS

	TYPE	EDUC$1	EDUC$2	EDUC$3
GENDER$1				
_____	_____	_____	_____	_____
1	−0.639	−0.896	0.213	1.753
−1.842				

MEANS/INTERCEPTS/THRESHOLDS

	REC	RET	ACT
	_____	_____	_____
1	−0.944	−0.496	−0.187

SLOPES

	OVERALL	EFFE	EFFI	LIT
TRU				
_____				
TYPE	0.015	0.024	−0.093	0.078
0.121				
EDUC	0.075	0.098	−0.197	−0.076
0.259				

GENDER	−0.166	0.004	0.153	−0.286
−0.081				
REC	0.217	0.109	−0.035	0.183
0.652				
RET	0.306	0.129	0.060	0.142
0.459				
ACT	−0.041	0.154	−0.058	0.326
0.646				

                CORRELATION MATRIX (WITH VARIANCES ON THE DIAGONAL)
                 TYPE   EDUC   GENDER   REC
RET

                _____   _____   _____   _____
_____

TYPE	0.156			
EDUC	0.355			
GENDER	−0.268	−0.174		
REC	0.094	0.217	−0.143	0.789
RET	0.016	0.288	0.031	0.516
0.554				
ACT	−0.051	0.177	0.029	0.102
0.188				

                CORRELATION MATRIX (WITH VARIANCES ON THE DIAGONAL)
                  ACT

                _____
ACT	0.236

THE MODEL ESTIMATION TERMINATED NORMALLY

MODEL FIT INFORMATION

Number of Free Parameters   26

Chi-Square Test of Model Fit

        Value   51.183*
        Degrees of Freedom   31
        P-Value   0.0127

*   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                       0.061
              90 Percent C.I.                0.029  0.090
              Probability RMSEA <= .05       0.249

CFI/TLI

              CFI                            0.945
              TLI                            0.920

Chi-Square Test of Model Fit for the Baseline Model

              Value                        411.254
              Degrees of Freedom                45
              P-Value                        0.0000

WRMR (Weighted Root Mean Square Residual)

              Value                          0.948
```

MODEL RESULTS

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
LOYALTY BY				
REC	1.000	0.000	999.000	999.000
RET	0.940	0.106	8.842	0.000
LOYALTY ON				
TYPE	0.107	0.112	0.961	0.336
OVERALL	0.282	0.063	4.470	0.000
EFFE	0.127	0.065	1.962	0.050
EFFI	0.034	0.064	0.528	0.597
LIT	0.080	0.095	0.834	0.404
ACT	0.247	0.074	3.321	0.001
TRU	0.376	0.088	4.253	0.000
ACT ON				
TRU	0.646	0.045	14.204	0.000
LIT	0.326	0.055	5.963	0.000
LOYALTY WITH				
EDUC	0.195	0.055	3.549	0.000
GENDER	-0.045	0.076	-0.591	0.555
EDUC WITH				
TYPE	0.141	0.048	2.926	0.003
Means				
TYPE	-0.639	0.282	-2.262	0.024

Intercepts				
REC	−0.829	0.846	−0.980	0.327
RET	−0.388	0.488	−0.795	0.427
ACT	−0.187	0.261	−0.717	0.474
Thresholds				
EDUC$1	−0.896	0.982	−0.913	0.361
EDUC$2	0.213	0.919	0.232	0.816
EDUC$3	1.753	0.925	1.895	0.058
GENDER$1	−1.842	0.919	−2.006	0.045
Variances				
TYPE	0.156	0.039	3.999	0.000
Residual Variances				
REC	0.426	0.056	7.607	0.000
RET	0.233	0.048	4.830	0.000
ACT	0.236	0.016	14.880	0.000
LOYALTY	0.347	0.054	6.422	0.000

STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
LOYALTY BY				
REC	0.880	0.028	31.540	0.000
RET	0.920	0.022	41.209	0.000
LOYALTY ON				
TYPE	0.035	0.036	0.963	0.336
OVERALL	0.260	0.057	4.523	0.000
EFFE	0.101	0.051	1.988	0.047
EFFI	0.033	0.062	0.528	0.598
LIT	0.063	0.073	0.856	0.392
ACT	0.219	0.064	3.421	0.001
TRU	0.337	0.072	4.666	0.000
ACT ON				
TRU	0.653	0.038	16.992	0.000
LIT	0.290	0.044	6.534	0.000
LOYALTY WITH				
EDUC	0.331	0.089	3.722	0.000
GENDER	−0.076	0.129	−0.593	0.553
EDUC WITH				
TYPE	0.355	0.094	3.783	0.000

Means

TYPE	−1.616	0.669	−2.413	0.016
Intercepts				
REC	−0.604	0.587	−1.029	0.304
RET	−0.314	0.383	−0.822	0.411
ACT	−0.174	0.240	−0.728	0.467
Thresholds				
EDUC$1	−0.896	0.982	−0.913	0.361
EDUC$2	0.213	0.919	0.232	0.816
EDUC$3	1.753	0.925	1.895	0.058
GENDER$1	−1.842	0.919	−2.006	0.045
Variances				
TYPE	1.000	0.000	999.000	999.000
Residual Variances				
REC	0.226	0.049	4.599	0.000
RET	0.153	0.041	3.730	0.000
ACT	0.206	0.028	7.480	0.000
LOYALTY	0.238	0.038	6.260	0.000

STDY Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
LOYALTY BY				
REC	0.880	0.028	31.540	0.000
RET	0.920	0.022	41.209	0.000
LOYALTY ON				
TYPE	0.035	0.036	0.963	0.336
OVERALL	0.234	0.052	4.513	0.000
EFFE	0.105	0.053	1.991	0.047
EFFI	0.028	0.053	0.528	0.598
LIT	0.066	0.077	0.856	0.392
ACT	0.219	0.064	3.421	0.001
TRU	0.311	0.067	4.621	0.000
ACT ON				
TRU	0.603	0.042	14.211	0.000
LIT	0.304	0.047	6.449	0.000
LOYALTY WITH				
EDUC	0.331	0.089	3.722	0.000
GENDER	−0.076	0.129	−0.593	0.553
EDUC WITH				
TYPE	0.355	0.094	3.783	0.000
Means				
TYPE	−1.616	0.669	−2.413	0.016

```
Intercepts
   REC               −0.604      0.587     −1.029      0.304
   RET               −0.314      0.383     −0.822      0.411
   ACT               −0.174      0.240     −0.728      0.467

Thresholds
   EDUC$1            −0.896      0.982     −0.913      0.361
   EDUC$2             0.213      0.919      0.232      0.816
   EDUC$3             1.753      0.925      1.895      0.058
   GENDER$1          −1.842      0.919     −2.006      0.045

Variances
   TYPE               1.000      0.000    999.000    999.000

Residual Variances
   REC                0.226      0.049      4.599      0.000
   RET                0.153      0.041      3.730      0.000
   ACT                0.206      0.028      7.480      0.000
   LOYALTY            0.238      0.038      6.260      0.000


STD Standardization

                                          Two−Tailed
                  Estimate     S.E.   Est./S.E.    P−Value

LOYALTY   BY
   REC                1.208      0.124      9.733      0.000
   RET                1.135      0.093     12.263      0.000

LOYALTY   ON
   TYPE               0.089      0.092      0.963      0.336
   OVERALL            0.234      0.052      4.513      0.000
   EFFE               0.105      0.053      1.991      0.047
   EFFI               0.028      0.053      0.528      0.598
   LIT                0.066      0.077      0.856      0.392
   ACT                0.204      0.059      3.441      0.001
   TRU                0.311      0.067      4.621      0.000

ACT       ON
   TRU                0.646      0.045     14.204      0.000
   LIT                0.326      0.055      5.963      0.000

LOYALTY   WITH
   EDUC               0.331      0.089      3.722      0.000
   GENDER            −0.076      0.129     −0.593      0.553

EDUC      WITH
   TYPE               0.141      0.048      2.926      0.003

Means
   TYPE              −0.639      0.282     −2.262      0.024
```

```
   Intercepts
      REC              -0.829      0.846     -0.980       0.327
      RET              -0.388      0.488     -0.795       0.427
      ACT              -0.187      0.261     -0.717       0.474

   Thresholds
      EDUC$1           -0.896      0.982     -0.913       0.361
      EDUC$2            0.213      0.919      0.232       0.816
      EDUC$3            1.753      0.925      1.895       0.058
      GENDER$1         -1.842      0.919     -2.006       0.045

   Variances
      TYPE              0.156      0.039      3.999       0.000

   Residual Variances
      REC               0.426      0.056      7.607       0.000
      RET               0.233      0.048      4.830       0.000
      ACT               0.236      0.016     14.880       0.000
      LOYALTY           0.238      0.038      6.260       0.000


R-SQUARE

   Observed                                           Two-Tailed
Residual
    Variable       Estimate       S.E.  Est./S.E.    P-Value
Variance

    REC              0.774      0.049     15.770       0.000
    RET              0.847      0.041     20.605       0.000
    ACT              0.794      0.028     28.876       0.000

    Latent                                            Two-Tailed
    Variable       Estimate       S.E.  Est./S.E.    P-Value

    LOYALTY          0.762      0.038     20.062       0.000
```

QUALITY OF NUMERICAL RESULTS

     Condition Number for the Information Matrix
0.241E-03
        (ratio of smallest to largest eigenvalue)

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.

No modification indices above the minimum value.

        Beginning Time: 10:47:13
           Ending Time: 10:47:13
          Elapsed Time: 00:00:00

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