# Appendix 1
# Syntax

Observed Variables

X1 - X14

Correlation Matrix

1

.682 1

.615 .588 1

.660 .706 .589 1

.553 .549 .644 .555 1

.353 .341 .380 .296 .320 1

.289 .263 .294 .239 .229 .517 1

.348 .335 .355 .306 .317 .521 .627 1

.215 .221 .281 .143 .238 .442 .403 .463 1

.297 .276 .306 .261 .245 .372 .496 .433 .338 1

.367 .369 .349 .322 .320 .503 .450 .534 .430 .421 1

.433 .415 .409 .421 .373 .370 .405 .421 .345 .608 .473 1

.359 .343 .366 .336 .353 .483 .383 .473 .408 .291 .510 .418 1

.339 .320 .316 .263 .253 .425 .456 .466 .371 .351 .442 .394 .341 1

Sample Size: 2235

Latent Variables

SC SE PV1

Relationships

X1 - X5 = SC

X6 - X13 = SE

X14 = PV1

SE = SC

PV1 = SC SE

Set the error variance of X14 to 0

Let the error covariances of X3 and X5 correlate

LISREL Output: SS SC EF RS MI

Path Diagram

Print Residuals

End of Problem

# Appendix 2
# Goodness of Fit Statistics

Degrees of Freedom = 74

Minimum Fit Function Chi-Square = 1134.67 (P = 0.0)

Normal Theory Weighted Least Squares Chi-Square = 1141.47 (P = 0.0)

Estimated Non-centrality Parameter (NCP) = 1067.47

90 Percent Confidence Interval for NCP = (961.81 ; 1180.55)

Minimum Fit Function Value = 0.51

Population Discrepancy Function Value (F0) = 0.48

90 Percent Confidence Interval for F0 = (0.43 ; 0.53)

Root Mean Square Error of Approximation (RMSEA) = 0.080

90 Percent Confidence Interval for RMSEA = (0.076 ; 0.085)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.00

Expected Cross-Validation Index (ECVI) = 0.54

90 Percent Confidence Interval for ECVI = (0.49 ; 0.59)

ECVI for Saturated Model = 0.094

ECVI for Independence Model = 15.54

Chi-Square for Independence Model with 91 Degrees of Freedom = 34698.19

Independence AIC = 34726.19

Model AIC = 1203.47

Saturated AIC = 210.00

Independence CAIC = 34820.16

Model CAIC = 1411.54

Saturated CAIC = 914.76

Normed Fit Index (NFI) = 0.97

Non-Normed Fit Index (NNFI) = 0.96

Parsimony Normed Fit Index (PNFI) = 0.79

Comparative Fit Index (CFI) = 0.97

Incremental Fit Index (IFI) = 0.97

Relative Fit Index (RFI) = 0.96

Critical N (CN) = 208.13

Root Mean Square Residual (RMR) = 0.051

Standardized RMR = 0.051

Goodness of Fit Index (GFI) = 0.93

Adjusted Goodness of Fit Index (AGFI) = 0.90

Parsimony Goodness of Fit Index (PGFI) = 0.66

# Appendix 3
# Cross Validation Syntax for Original Model

```
Program for self-concept and self-efficacy
Observed Variables: X1 - X14
Covariance Matrix from file m3
Sample Size: 2235
Latent Variables
SC SE PV1
Relationships
X1 - X5 = SC
X6 - X13 = SE
X14 = PV1
SE = SC
PV1 = SC SE
Set the error variance of X14 to 0
save Sigma in File Model-A
Path Diagram
End of Problem

Program for Two Validation Sample and Compute CVI
Observed variables: X1 - X14
Covariance Matrix from file m4
Sample Size: 2169
Latent Variables
SC SE PV1
Relationships
X1 - X5 = SC
X6 - X13 = SE
X14 = PV1
SE = SC
PV1 = SC SE
Set the error variance of X14 to 0
Crossvalidate File Model-A
Path Diagram
End of Problem
```

# Appendix 4
# Cross Validation syntax for Modified Model

```
Program for self-concept and self-efficacy
Observed Variables: X1 - X14
Covariance Matrix from file ma
Sample Size: 2235
Latent Variables
SC SE PV1
Relationships
X1 - X5 = SC
X6 - X13 = SE
X14 = PV1
SE = SC
PV1 = SC SE
Set the error variance of X14 to 0
Let the error covariances of X3 and X5 correlate
save Sigma in File Model-A
Path Diagram
End of Problem

Program for Two Validation Sample and Compute CVI
Observed variables: X1 - X14
Covariance Matrix from file mb
Sample Size: 2169
Latent Variables
SC SE PV1
Relationships
X1 - X5 = SC
X6 - X13 = SE
X14 = PV1
SE = SC
PV1 = SC SE
Set the error variance of X14 to 0
Let the error covariances of X3 and X5 correlate
Crossvalidate File Model-A
End of Problem
```