

Translating a Path Diagram into Standard LISREL Syntax

1. *Draw or obtain a regulation path diagram of your model.*
2. *Identify and type all non-residual latent variables.* Examine each *latent* variable that is not a residual. If the variable has any arrow pointing to it, it is an η . Label it as such in the diagram, starting with η_1 . If it has no arrow pointing to it, it is a ξ . Label it as such in the diagram, starting with ξ_1 .
3. *Identify and type all manifest variables.* Generally, any non-residual latent variable will have *indicators*. These are manifest variables that receive arrows from the latent variables. If a manifest variable is an indicator for a ξ , then it is an x . If a manifest variable is an indicator for an η , then it is a y .

Start with ξ_1 . Label all its indicators as x 's, starting at x_1 . Then move to ξ_2 , and continue labeling the x variables, picking up where you left off. Keep doing this until you have labeled all the x variables.

Then do the same thing with the η variables. Start with η_1 , and label its indicators as y 's, starting at y_1 . Continue working through all the η variables, until you have labeled all their y indicators.

4. *Identify and type all residuals.*

A residual on an x is a δ . Each x_i has a companion δ_i .

A residual on a y is an ϵ . Each y_i has a companion ϵ_i .

Label all the epsilons and deltas in the diagram.

A residual on an η is a ζ . Each η_i has a companion ζ_i . Make sure all the zetas are represented and labeled in the diagram.

5. *Identify and label all directed path coefficients according to their correct LISREL matrix position. Make sure to have unit loading identification constraints where you need them. Do structural model coefficients first.* These coefficients are directed paths from non-residual latent variables to other non-residual latent variables.

$B_{i,j}$ = path from η_j to η_i

$\Gamma_{i,j}$ = path from ξ_j to η_i

$\Lambda_{i,j}^x$ = path from ξ_j to x_i

$\Lambda_{i,j}^y$ = path from η_j to y_i

6. Identify and label all undirected paths. Unfortunately, there are many “standards” with path diagrams, and it is quite common for paths not to be represented.