

Latent Class Analysis

Lecture 12

March 28, 2006

Clustering and Classification

Today's Lecture

- More latent class analysis (LCA).
- Fitting and estimating LCA.
- Empirical article with LCA.

Overview

► Today's Lecture

Estimation of Latent
Class Models

Wrapping Up

Estimation of Latent Class Models

Overview

Estimation of Latent Class Models

- Mplus Demo
- Mplus Code

Wrapping Up

- There are several programs that exist that can estimate LCA models.
- None of them are useable in R.
 - ❖ There is an R package, but I would advise against it.
- The package we will use will be the demo version of Mplus.
 - ❖ The full version of Mplus is very useful (and very expensive).
 - ❖ The demo package is also very useful (and will be adequate for our purposes).

Mplus Demo Package

Overview

Estimation of Latent
Class Models

► Mplus Demo

► Mplus Code

Wrapping Up

- To download the demo, go to
<http://www.statmodel.com>.
- As specified on the above website, the demo version restricts the number of variables you can have in an analysis:
 - ❖ Maximum of six dependent variables.
 - ❖ Maximum of two independent variables.
- All of these will serve to simplify our examples.

Mplus Code

- Like a lot of stat packages, Mplus is a code (or script) based program.
- Examples of Mplus code are readily available on the Mplus website.
- All of these will serve to simplify our examples.

Overview

Estimation of Latent
Class Models

➤ Mplus Demo

➤ Mplus Code

Wrapping Up

Final Thought

Overview

Estimation of Latent
Class Models

Wrapping Up

► Final Thought

► Next Class

- Fitting LCA is relatively easy if you have the right software.
- Mplus is a very flexible package for many types of analyses with latent variables
- We will use Mplus in the estimation of other models in the weeks to come.

Next Time

Overview

Estimation of Latent
Class Models

Wrapping Up

► Final Thought

► Next Class

- Goodness of fit in LCA/FMM.
 - ❖ Model comparison approaches with AIC/BIC and Chi-squared
 - ❖ Absolute fit evaluation using moments of the data.
 - ❖ More LCA examples/facets.