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Title

Stepwise modeling approaches for simple and complex latent class models

Abstract

Latent class and finite mixture models are nowadays part of the standard toolbox of applied researchers. However, the use of these models is not straightforward at all. In this talk, I will give an overview of recent and ongoing work of my group on various types of stepwise modeling approaches for LC analysis, which aim at providing researchers more control over the analysis they are performing on their data. This work, which is part of a large research project funded by the Netherlands Science Foundation, includes research on three types of very promising approaches:

1. The use of measures similar to modification indices for model fit assessment and model adjustment in simple and complex latent class analysis
2. Bias adjusted three-step latent class analysis for studying the relationship between class membership and external variables
3. Divisive latent class analysis for the construction of latent class trees, yielding an approach similar to hierarchical cluster analysis

Brief CV

Jeroen K. Vermunt received his PhD degree in social sciences research methods from Tilburg University in the Netherlands in 1996. He is currently a full professor in the Department of Methodology and Statistics at Tilburg University, where he has been on the faculty since 1992. In 2005, he received the Leo Goodman early career award from the methodology section of the American Sociological Association. His research interests include latent class and finite mixture models, IRT modeling, longitudinal and event history data analysis, multilevel analysis, and generalized latent variable modeling. He is the co-developer (with Jay Magidson) of the Latent GOLD software package.

Homepage: http://www.tilburguniversity.edu/webwijs/show/j.k.vermunt.htm