

Great Plains IDeA-CTR Monthly Lecture Series

Mixture models in the social, behavioral, and education sciences: Classification applications using Mplus

Thursday, March 28th, 2019 | 12:00-1:00 PM College of Nursing, 2017 University of Nebraska Medical Center



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Discussion: The fundamental premise in statistical classification is an assumption that systematic intra-sample heterogeneity exists, but information necessary to identify such heterogeneity has not been explicitly measured. In contrast to traditional distance-based methods of classification such as connectivity-based (i.e. hierarchical) and centroid-based (i.e. k-means) clustering, finite mixture models can be used as a form of model-based clustering which treats the unmeasured group information as a latent variable. Modern cross-sectional applications of mixture modeling to be discussed include latent profile analysis (LPA) and latent class analysis (LCA); and longitudinal applications include latent growth mixture models (LGMM), latent Markov models (LMM), and latent transition analysis (LTA). Examples will utilize the Mplus statistical analysis software.

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