

Kolloquium des Instituts für Soziologie im Sommersemester 2021

Montag, 17.05.2021, 13 -15 Uhr, virtuelle Veranstaltung – Link siehe unten

“Reliability Estimation Using Structural Equation Modeling”

(Prof. Tenko Raykov (Michigan State University, Measurement and Quantitative Methods))

This 2-hour workshop begins with a short introduction to the classical test theory and factor analysis, which are the fundament of reliability estimation. A brief revisit of the basics of structural equation modeling is then offered, in particular of confirmatory factor analysis that represents the framework for reliability estimation. Evaluation of reliability is subsequently of concern, which evolves within the context of the single-factor model. Point and interval estimation of reliability, as well as of coefficient alpha and their comparison, are then focused on for the case of unidimensionality. The extension of the approach to the case of multiple assumption violations is then discussed. Throughout the workshop, the popular latent variable modeling software Mplus is used, and its command and output files are discussed in the detail needed. Numerical data examples are utilized on multiple occasions during the workshop.

About the referent

The research of Tenko Raykov spans a variety of areas with many practical applications, including latent variable and structural equation modeling, measurement and scale construction and development, multilevel modeling, longitudinal data modeling, analysis of incomplete data sets (missing data), latent class analysis (finite mixture analysis), survival and duration analysis, as well as item response theory and modeling. Recent projects include methods for reliability and validity estimation, examining population heterogeneity, survival analysis, missing data analysis, longitudinal modeling, model fit assessment, and measurement invariance. Professor Raykov has published more than 150 peer-reviewed articles in numerous academic journals and he has also written several textbooks.

ZOOM-Link:

<https://tu-dresden.zoom.us/j/85811322831?pwd=NFQ0dnVBTzBWeWx0YTBYRzF5NGRwUT09>

