ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

DIPARTIMENTO
DI PSICOLOGIA
"RENZO CANESTRARI"

PhD Program in Psychology

Seminar "Introduction to Latent Profile Analysis: Cross-Sectional and Longitudinal Applications"

Prof. Sara K. Johnson

Eliot-Pearson Department of Child Study and Human Development

Tufts University, Medford, MA, USA

28/05/2025, 9:00 – 13:00

Aula E - Piazza Aldo Moro, Cesena

Abstract

Many researchers are interested in identifying groups of people who share similarities based on a set of beliefs, behaviors, or attitudes (e.g., parenting styles captured by warmth and monitoring). These types of research questions pose analysis challenges because the subgroups cannot be captured directly with a single question but instead must be inferred from multiple pieces of information (in other words, group membership is latent). Mixture models (a group of statistical analyses) can be used in these situations because they are designed to investigate latent subgroups. These models have become quite popular in the social and behavioral sciences but are less frequently included in statistical coursework compared to other techniques (e.g., multiple regression, factor analyses). This workshop introduces two types of mixture models, latent profile analysis (LPA) and latent profile transition analysis (LPTA), which are used for groups of variables that are measured on a continuous (or approximately continuous) scale. I will discuss the foundational aspects of LPA and LPTA in a non-technical way, including 1. conceptual foundations and research questions; 2. data requirements, including planning for data collection or evaluating the suitability of previously collected data; 3. An overview of the steps for conducting analyses.

Reading: Johnson, S. K. (2021). Latent profile transition analyses and growth mixture models: A very non-technical guide for researchers in child and adolescent development. *New Directions for Child and Adolescent Development, 175*, 113 – 139. https://doi.org/10.1002/cad.20398