Title: Workshop: Modeling Within-Person Associations in Longitudinal Data

Instructor(s): Lesa Hoffman

Abstract:

This workshop is intended for social scientists who collect and analyze longitudinal data. It will be most useful for those who are well-acquainted with general linear models (regression, ANOVA), and have at least some familiarity with longitudinal data analysis through multilevel modeling or structural equation modeling. Examples will primarily utilize Mplus software, but univariate multilevel analyses will also use SAS, SPSS, and STATA. The workshop will build on chapters 1–7 of the Longitudinal Analysis textbook by presenting univariate and multivariate models for time-varying predictors of fluctuation and change (i.e., as covered in chapters 8–9, as well as in the sources listed below).

Suggested Readings:

Textbook: Hoffman, L. (2015). *Longitudinal Analysis: Modeling Within-Person Fluctuation and Change*. Routledge Taylor and Francis.

Bauer, D. J. (2003). Estimating multilevel linear models as structural equation models. *Journal of Educational and Behavioral Statistics*, 28(2), 135-167.

Berry, D., & Willoughby, M. (2017). On the practical interpretability of cross-lagged panel models: Rethinking a developmental workhorse. *Child Development*, 88(4), 1186-1206.

Curran, P. J., Howard, A. L., Bainter, S. A., Lane, S. T., & McGinley, J. S. (2014). The separation of between-person and within-person components of individual change over time: A latent curve model with structured residuals. *Journal of Consulting and Clinical Psychology*, 82(5), 879-894.

Hamaker, E. L., Kuiper, R. M., & Grasman, R. P. P. P. (2015). A critique of the cross-lagged panel model. *Psychological Methods*, 20(1), 102-116.

Lüdtke, O., Marsh, H. W., Robitzsch, A., Trautwein, U., Asparouhov, T., & Muthén, B. (2008). The multilevel latent covariate model: A new, more reliable approach to group-level effects in contextual studies. *Psychological Methods*, 13(3), 203-229.

Preacher, K. J., Zhang, Z., & Zyphur, M. J. (2011). Alternative methods for assessing mediation in multilevel data: The advantages of multilevel SEM. *Structural Equation Modeling*, 18, 161-182.

Preacher, K. J., Zyphur, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods*, 15(3), 209-233.

Assignment: Active participation

Credits: 2 workshop days