

How to analyze a cross-lagged multilevel model to compare two small groups?

Langeloo, A.^{1*}, Mascareño Lara, M. N.¹, Deunk, M. I.¹, Strijbos, J. W.¹

¹ University of Groningen – GION, The Netherlands

* Presenting author (PhD-student; other authors are supervisors)

Briefly Explain Your Question (max. 100 words)

My research concerns a longitudinal study (three time points) in 20 kindergarten classrooms, with each two monolingual and two multilingual focal children (40 in each group). I want to test a multilevel cross-lagged model over the three time points with four latent variables (i.e., classroom quality, engagement, early literacy and executive functioning) to compare both groups. However, due to the small sample, the model appears to be too complex to converge. Since the research question is highly relevant, I hope to discuss how this question can be approached analytically.

Scientific field(s) of the author(s)

Educational Science

Relevance to conference theme (max. 50 words)

I intend to do complex statistical analyses on a small sample. As I am conducting quantitative research on classroom interaction, there is a tension between the very detailed observational data that is needed to answer the research question and the need for enough data to conduct advanced analyses.

Keywords (max. 3)

multilevel; cross-lagged model; mediation