

Course: Multilevel Analysis with HLM
Instructor: Hermann Dueller
Language: English
Venue: Leningrad region, Russia
Time: August 22 – September 2

Thematic Overview. Since a number of years multilevel regression analysis has become more and more popular in cross cultural research. Multilevel analysis is advised for analysing hierarchically nested data, i.e. in cases, where respondents from different schools, organizations, or countries have to be included into regression analysis.

One aim of this course is to give an introduction into the basic ideas of multilevel analysis. The advantages of multilevel analysis over conventional OLS-regression will be discussed. Since cross-level interaction effects are frequently central to multilevel analyses, the course will also focus on the right understanding of interaction effects and their conditional interpretation. During the PC sessions the participants will get the opportunity to work on an own multilevel research question.

Prerequisites. Participating in this course requires basic knowledge of OLS-regression. The participants should also be familiar with SPSS.

Session Plan

- Traditional Approaches for Multilevel Analysis
- Multilevel Analysis: Overview of Different Basic Models
- Comparison of OLS-Regression and Multilevel Regression Analysis
- Interaction Effects and their Conditional Interpretation
- Conditional t-Values and their Computation
- Explained Variance in Multilevel Analysis
- Fit Measures for Multilevel Analysis
- Standardized Regression Coefficients
- Introduction into Logistic Multilevel Regression

Literature.

Friedrich, Robert, J. (1982): In Defense of Multiplicative Terms in Multiple Regression Equations. *American Journal of Political Science* 26, 4: 797-833.

Hox, Joop (2010): *Multilevel Analysis. Techniques and Applications.* Second Edition. New York: Routledge.

Luke, Douglas A. (2004): *Multilevel Modeling.* Sage University Paper Series on Quantitative Applications in Social Sciences, 07-143. Newbury Park, CA: Sage.

Snijders, Tom A. B. und Roel J. Bosker (1999): *Multilevel Analysis. An Introduction to Basic and Advanced Multilevel Modeling.* London: Sage.

An own handout will be distributed at the beginning of the course.