

HIERARCHICAL LINEAR MODELING

Hierarchical structured data is frequently encountered in the field of educational sciences. The data obtained in many studies include units in social structures / groups / clusters. For example, while the students are in the classroom, the classes are in the school and the schools are located in the regions. From another point of view, the data collected at different periods of the student can be given as an example of such data structures. Each level within this order has different variables within itself (the socio-economic level of the student, the number of the class, the number of classrooms of the school etc.). In this respect, the data in the same clusters (for example, students in the same class) show similar characteristics and the data obtained may be additive. Analysis of these data by single-level known analysis methods causes other variables to be ignored and erroneous results. Therefore, it should be analyzed by taking into account the characteristics of each level. Hierarchical Linear Modeling also called multi-level models, emerges. HLM is a special modeling method that is created by combining regression with ANCOVA used in the analysis of hierarchical data.

The workshop will take place in two parts and in the first part, information will be given on the theoretical infrastructure of HLM (data structure, levels, context models, intersection and leaning models, etc.). In the second part, application studies such as data file preparation, application of HLM analysis and interpretation of the findings will be done (Application is limited to Level 2 analyzes).

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