Forschungsmethoden, Diagnostik und iScience

Methods for Intensive Data

Universität
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Identification of inattentive participants in intensive longitudinal data

In this talk, I will present a dynamic latent class modeling approach that can be used to address inattention during long testing procedures and study designs intended to collect intensive longitudinal data. Inattention is a serious problem that affects the validity of studies in general. It occurs if participants do not follow the instructions and do not respond carefully to items or questions. Instead, they might try to finish the questionnaire as fast as possible and use as few cognitive resources as possible. Recent methods that tried to account for inattention included presentation of bogus items, the investigation of the response pattern, and latent class analysis. The main limitation of these methods is that they assume that inattention is a constant trait throughout the testing procedure. This, however is implausible both in long testing procedures and when persons are prompted repeatedly. In most situations, persons might start attentive but become inattentive at a later time point during the testing. The problem of inattention becomes more aggravated in long questionnaire batteries as they are often used in large-scale data sets (e.g., for baseline measures starting a repeated measures study design), in online platforms such as Amazon's Mturk, or in situations where participants are measured too frequently. In this talk, a new method will be presented that is based on dynamic latent class modeling framework. This method combines structural equation models with mixture modeling and time series analyses. It allows researchers to model inattention as a dynamic process that changes during testing procedures. Simulation studies and empirical data will be used to illustrate that this modeling approach can minimize bias due to inattention in a variety of scenarios including standard questionnaires and intensive longitudinal data. The results indicate that the method is sensitive to both detect which participants become inattentive and at which time point during testing.

**Forschungskolloquium
Methoden und Diagnostik
Methoden für intensive Daten**

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