**Methodological Innovations in Educational Large-Scale Assessments**

**June 8th, 2021 | LIfBi Bamberg**

# CALL FOR PRESENTATIONS

The International NEPS Conference is hosted for the sixth time by LIfBi – Leibniz Institute for Educational Trajectories, Bamberg. The event brings together scientists from different disciplines and from different stages of their academic careers to discuss current projects and findings in educational research. This year the main focus of the conference will be on the advancement of methodological practices in educational large-scale assessments. We are seeking to combine contributions on neglected problems and innovative solutions for the analysis of psychological constructs across heterogeneous contexts and life stages.

A keynote lecture by Matthias von Davier (Boston College, U.S.) and an opening presentation by Suzanne Jak (University of Amsterdam, NL) will highlight current trends in the modeling and analysis of complex data structures. In addition, we are inviting empirical contributions, statistical simulations, or software presentations on methods in educational large-scale assessment. Applications do not necessarily have to be based on the NEPS data. Methodological contributions may address (but are not limited to):

- Problems and solutions in the analysis of differential item and test functioning
- Impact of mode effects and ways to reduce them
- Potential of process data from computerized assessments
- Modeling of inattentive responding in competence and personality measurement
- Acknowledging heterogeneous and multilevel contexts in the analysis of latent constructs
- Modeling of unit- and item-nonresponse in longitudinal studies
- Innovative latent variable models for the measurement of complex constructs
- Examination of causal effects from observational data
- Techniques for ensuring the reproducibility of empirical findings

A preconference workshop on June 7th, 2021 by Carolin Hahnel (DIPF) will give the opportunity to learn about the analysis of log data from computerized assessments.

**Important note: Due to the uncertain situation resulting from the pandemic, the conference will be conducted by video conference without physical presence. Conference language is English.**

## Methodological Innovations in Educational Large-Scale Assessments

**Contributions:** We are inviting individual presentations and entire sessions including 3 to 4 presentations.

**Abstract:** A presentation proposal should include a brief description of the research question, the methods, and main findings (up to 300 words). In addition, the methodological contribution to educational large-scale assessment should be explicitly highlighted.

Please state a title of the presentation, the names of the presenter/s, and their institutional affiliations. If the presentation is part of a coordinated session, also include the session title and session coordinator/s.

**Submission:** Abstract submission is possible via e-mail to neps-conference@lifbi.de until the submission deadline on **April 23rd, 2021**.

All authors will receive a notification of acceptance by **May 3rd, 2021**.

**Registration:** www.neps-data.de/neps-conference2021/Registration

**Financing:** There is no conference fee to pay. Participants need to provide their own computer and Internet access to attend the video conference.

**Venue:** Information on how to access the virtual conference will be made available by June 4th, 2021 to all registered participants.

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**Website:** www.neps-data.de/neps-conference2021

## 6th INTERNATIONAL NEPS CONFERENCE

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# PRECONFERENCE WORKSHOP

**Analysis of log data:**

**Introduction, indicator construction, and strategies for analysis**

Technology-based assessments can provide many advantages, for example, by allowing the collection of data on the course of item processing (so-called process data) in addition to the recording of "traditional" outcome data such as item responses. Such process data includes log data (i.e., events, event-related attributes, and timestamps) that are accumulated in log files during computer-based testing. While log data was still considered a "by-product" in the last decade, its strategic collection and deliberate analysis is steadily increasing. The possibilities of analyzing log data are manifold, but can be quite challenging due to the amount and structure of data, lack of conceptual considerations or insufficient documentation. The workshop will provide an introduction on how to work with log data. Participants will gain insight into the preparation and analysis of log data using the log data from a previous study. They will construct and analyze log data indicators themselves in hands-on exercises using the R package LogFSM. Finally, different strategies of analysis (i.e., log data indicators as dependent or independent variable in regression analyses, methods of machine learning, latent variable models) are briefly reviewed in an overview.

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| **Lecturer:** | Carolin Hahnel (DIPF) |
| **Schedule:** | June 7th, 2021 (09:00 – 17:00) |
| **Language:** | English |
| **Target group:** | The workshop is targeted at empirical researchers (e.g., educational sciences, psychology, sociology) who are interested in using process data from computerized cognitive assessments to address substantive research questions or improve psychological measurements. |

++++ Please mark in your calendar: 6th International NEPS Conference on June 8th, 2021 ++++

## 6th INTERNATIONAL NEPS CONFERENCE

### Methodological Innovations in Educational Large-Scale Assessments

**Prerequisites:** Participants should have basic knowledge of the statistical computing environment R and basic knowledge in multivariate statistics.

**Application:** Indicate your interest in attending the workshop during the conference registration: www.neps-data.de/neps-conference2021/Registration

Because the attendance capacities are limited, applications of active participants in the NEPS conference will be prioritized.

**Venue:** Information on how to access the video conference will be made available by June 4th, 2021 to all workshop participants.

**Financing:** The workshop is free of participation fees.