

# *Beyond Results* Small Group Work

Data Management –  
Group 2

# Log-data and Items Documentation – Group 2

## Data provider (e.g., item developer, data collection agency) perspective

1) How should the need for log-data and item documentation already be considered in the item and test development phase?

- **Tight collaboration: didactics experts decide the information to be logged during the item development phase; researchers, data analysts/scientists, data protectors, ...effort to strengthen collaboration**
- **Documenting is expensive**
- **Assessment framework should drive the observations to be logged and documented**
- **Family of items: use a meaningful naming convention for labeling log event-related values**
- **How to decide on completeness of logging: threat of missing opportunities, lack of knowledge, technical constraints... “more is better than less” but “only as much as possible”, and depending on analytical potential (e.g., omit key strokes if free text responses are only limited)**
- **Secondary data analysis: need to make data understandable**
- **Item-specific analyses: however, lacking generalization inference may be an issue**
- **Crowd-sourcing idea: wictionary for researchers documenting the log data from released items, creating a joint knowledge base based on researchers work and interest**



## Log-data and Items Documentation – Group 2

### Data provider (e.g., item developer, data collection agency) perspective

2) How to ensure the integrity of items when documenting them (security of confidential material)?

- **Mock-items: Creation of mock-up item as another version of a particular item; it shows an equivalent structure in terms of layout and interactivity, but without content revealing the task or neutral content; text is blinded (e.g., lorem ipsum)**
- **Sharing the item's interaction part without the question**
- **Secured access to item documentation and confidentiality agreement with the assessment organization (e.g., PIAAC OECD)**
- **Release a part of items (starting point to understand also the log data of unreleased items)**

## Log-data and Items Documentation – Group 2

### Data provider (e.g., item developer, data collection agency) perspective

3) What are other challenges for creating log data documentation / item documentation and what are potential solutions/best practices?

- **Huge amount of items in assessment programs requires great documentation effort, budget implications**
- **Need to adapt documentation across cycles of assessment program (change of technology)**
- **long term strategy needed, could be supported by a collaborative researcher community sharing knowledge and experience (advanced data users)**
- **GDPR: a substantive reason is needed for collecting log data in advance (ethical issues), how specific do the reasons need to be?**
- **What not to collect?: storage, transmission, processing limitations; drop very low-level events; select an meaningful granularity (wrt to research);**