

Time use survey: Mode of data collection

How are countries collecting time use data:
preliminary results of UNSD research

United Nations Statistics Division
Social and Gender Statistics Section



Overview of content



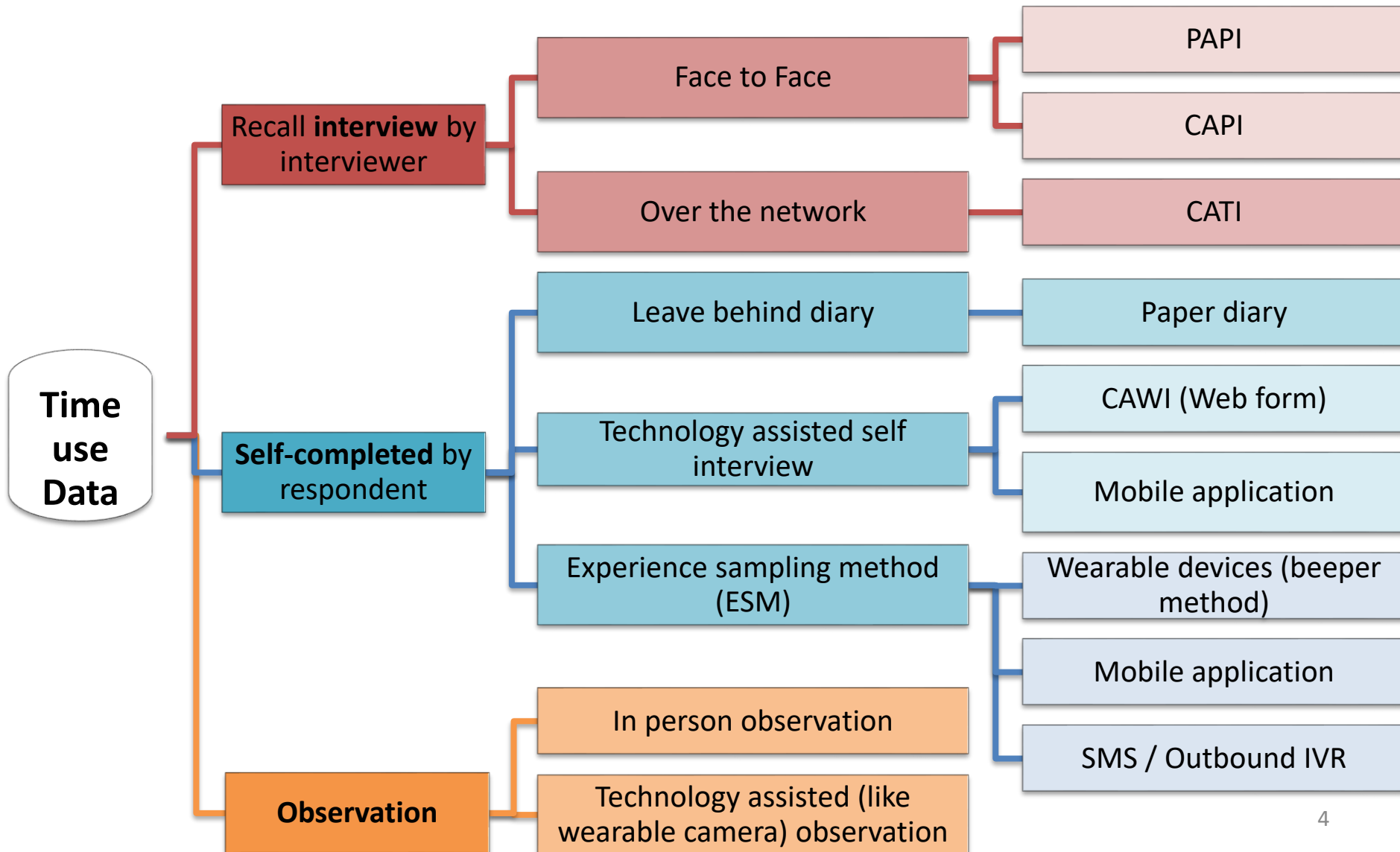
- Basic modes of data collection in TUS
- Mixing of mode
- Basic strategies for mixing modes
- How countries are collecting TUS data (ongoing data collection)

Basic modes of data collection used in TUS



1. Recall interview by interviewer
 - PAPI (Pen and paper interview)(*OCR, ICR, OMR*)
 - CAPI (Computer assisted personal interview)
 - CATI (Computer assisted telephone interview)
2. Self-completed by respondent
 - Paper diary
 - CAWI (Computer assisted web interview) using Web app
 - Mobile app
 - Experience sampling method - (SMS/IVR, mobile, wearable devices)
3. Observation
 - In person
 - Technology assisted

One way of classifying the modes in TUS



Selecting mode for data collection



- Selecting one mode over the other is a tradeoff between:
 - cost
 - survey coverage
 - response rate
 - Time
 - Etc.

Mix mode – It's a strategy



- Mixed-mode in data collection try to combine the best of all possible worlds by exploiting the advantages of different modes and compensate for their weaknesses at an affordable cost(De Leeuw 2005).

Advantages

- Improve response rate, overall coverage, data quality
- Reduce cost, time

Limitations

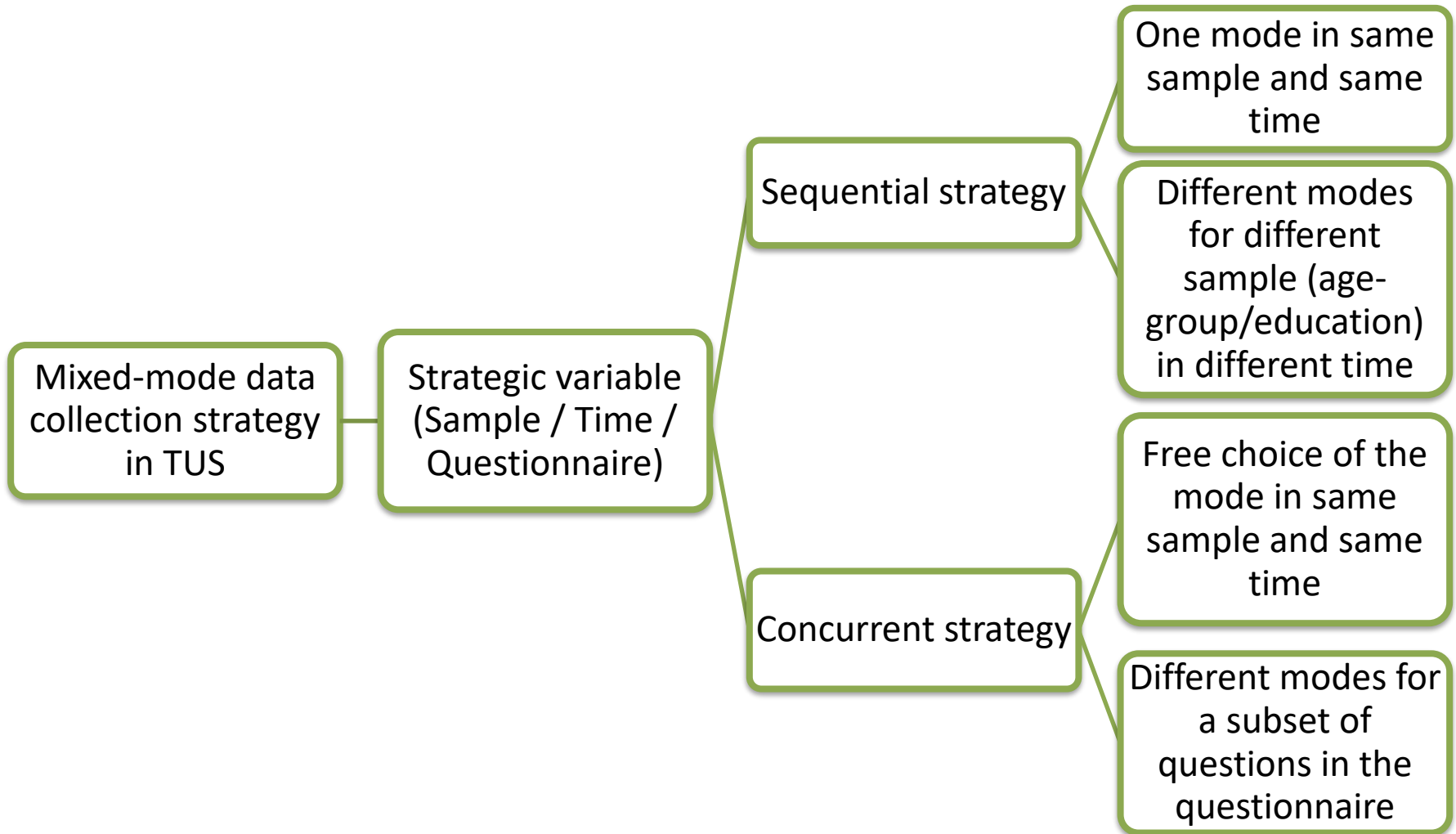
- Plan about mode effect (different way respondent may answer same question across mode)
- Extreme caution should be taken in designing and implementing equivalent questionnaires across modes
- Proper data integration test needs to be done so the data is comparable
- Potential for measurement error

Strategic variables to consider for mixing modes



- **Sample**
 - Subset of sample (age-group/education/location)
- **Time (Sample frame)**
 - Sequential vs. concurrent
- **Questionnaire**
 - The questions within the questionnaire could be sub-grouped in such a way that different modes could be used to collect them.
 - By doing this, some additional bias could be reduced caused by the choice of mode for that sub-group of question.

Basic strategies to mix mode in TUS



Basic strategies for mixing modes



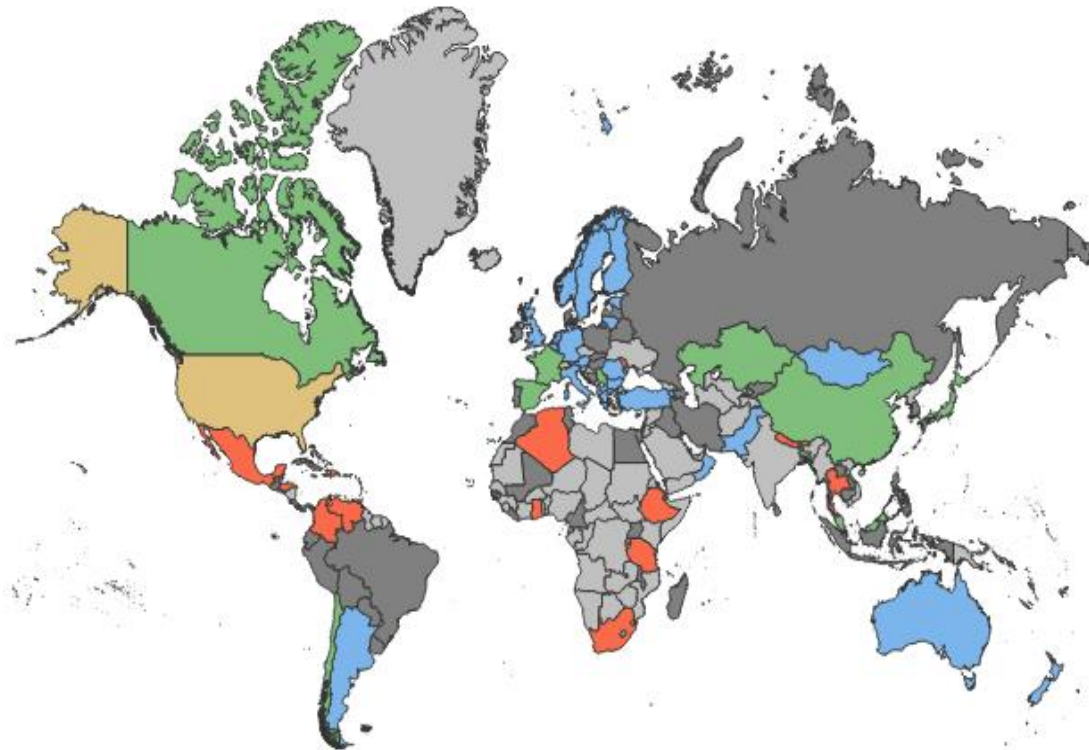
1. One mode in a sample at a time (**Sequential**)
 - e.g. CATI as main mode of data collection followed by CAPI for non-responsive sample
 - Effective strategy that reduce cost, improve response
2. Different mode for different sample at a time (education/age-group) (**Sequential**)
 - e.g. In Bangladesh, sample was sub-grouped by education. People who could not read/write were interviewed, and then educated people were given paper diary to complete
 - Improves coverage, response

Basic strategies for mixing modes (Cont...)



3. Free choice of mode in a sample at a time
(Concurrent)
 - e.g. In Serbia, users were given 3 options (Paper diary, CAWI, Mobile app) to respond to TUS.
 - improve response
4. Different mode for a subset of question in the questionnaire (Concurrent)
 - e.g. mix of face to face interview and technology assisted self-interview(CAWI/MobileApp) for subgroup of questions that is prone to social desirability bias
 - Improves privacy, data quality

Modes used by countries for time use survey (after 2000 AD)



[Self-administered Paper diary]

31

[Face to face Interview]

15

[Mixed]

10

[CATI]

2

[Without survey after 2000 AD]

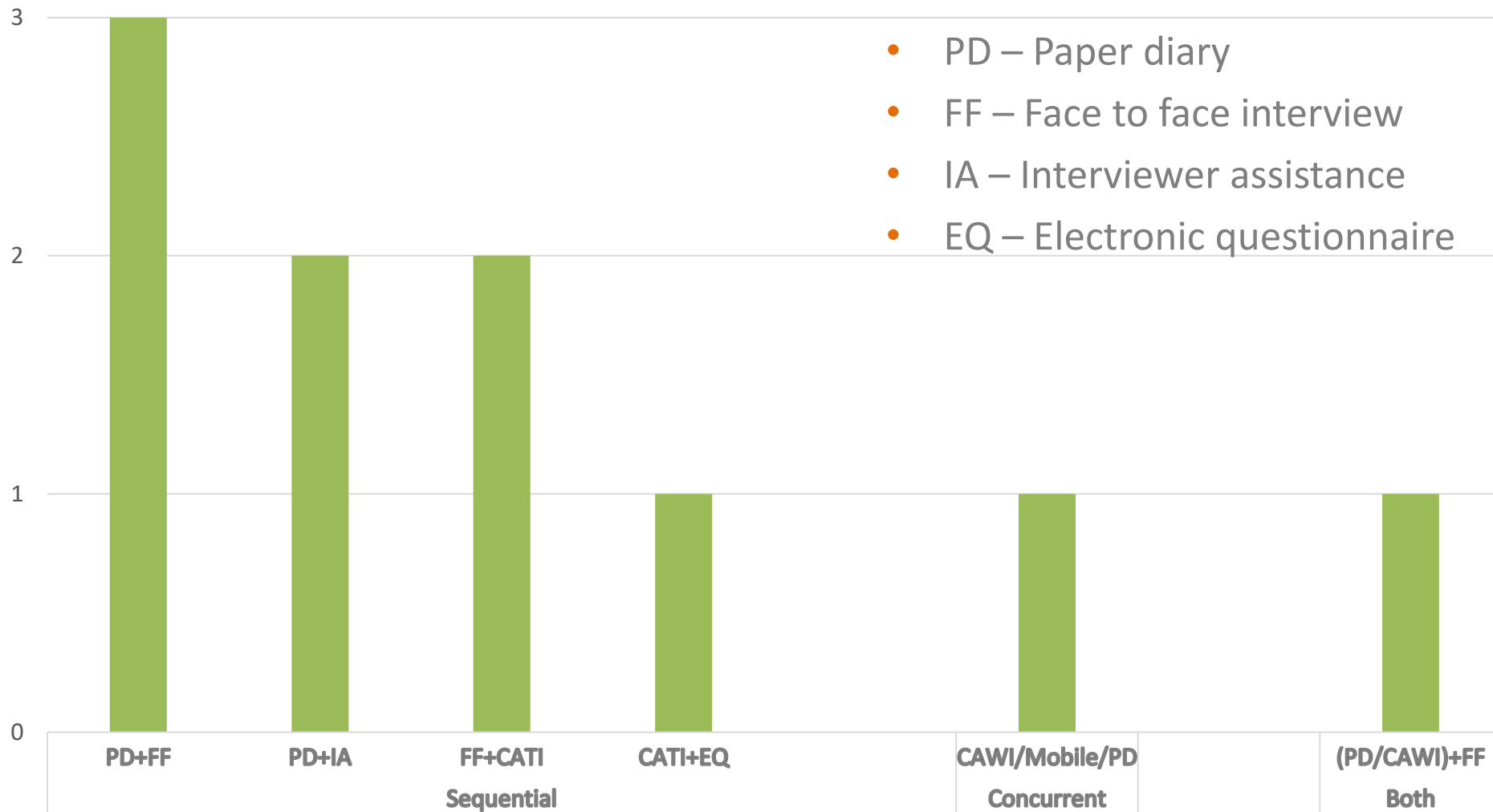
135

[Not identified yet]

47

11

Identified mixed mode used by countries



Conclusion



- Countries/researchers are testing/piloting, different modes of data collection including various mixed mode strategies.
- Innovative researches in alternative modes of data collection like wearable camera, sensor devices, innovative applications are ongoing.
- Overall goal is to produce high quality TUS data that is cross comparable not just across modes, but also across datasets, timeframes and geography.



Thank you!

<http://unstats.un.org/unsd/gender/default.html>