

Quality Assurance and Quality Control in 3MC Surveys

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Definition of Quality

- ▶ What is Quality?
 - Depends on field of study;
 - Value (Feigenbaum, 1951), Defect avoidance (Crosby, 1979), Fitness for purpose (Deming, 1944), Fitness for use (Juran & Gryna, 1980), etc...
 - In the 3MC surveys context quality is
 - degree of adherence to specifications or minimum total error(accuracy) given requirements agreed up on

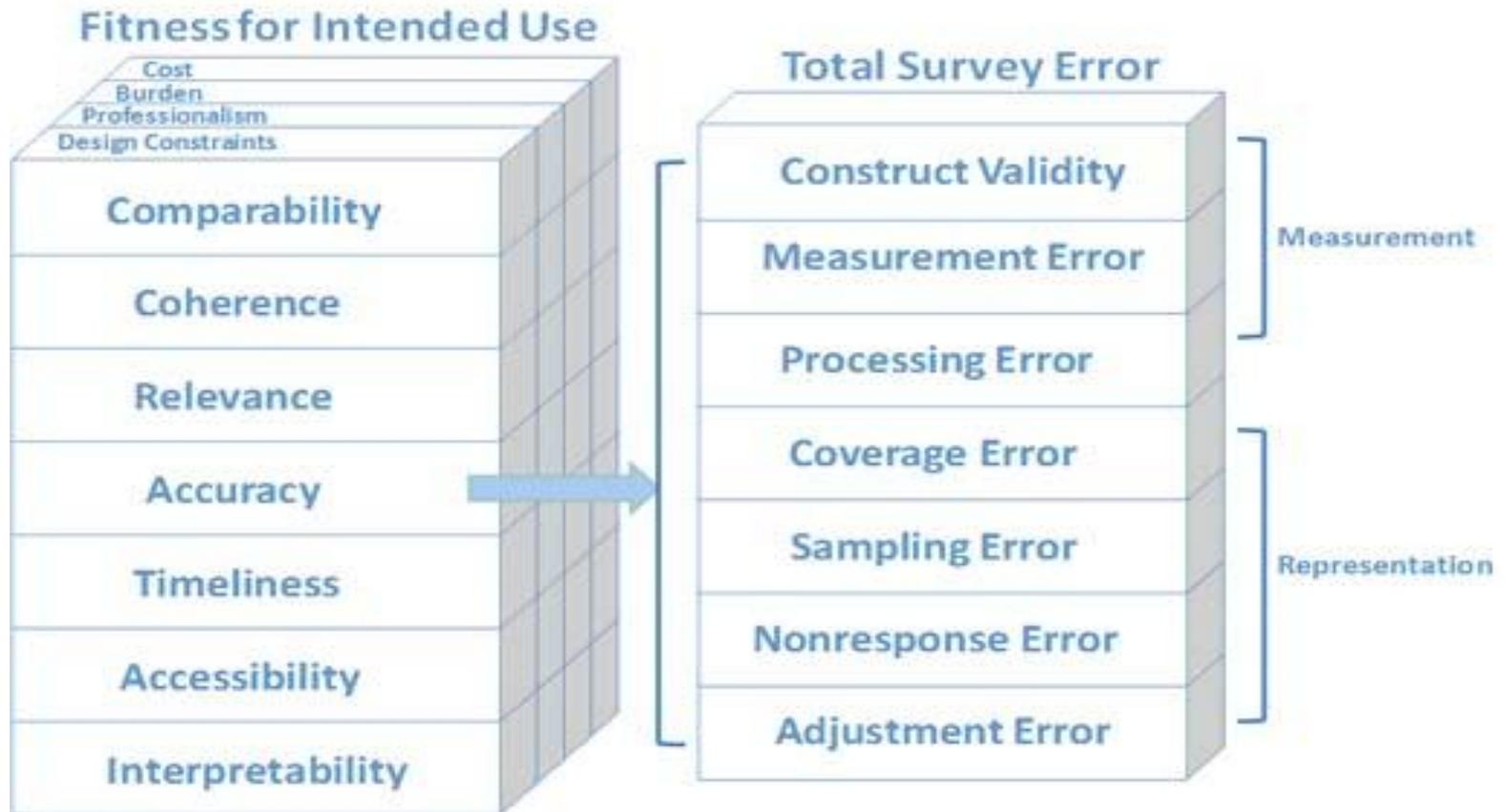
Definition of QA

- ▶ A system of procedures, checks, audits, and corrective actions to ensure that the products produced by an organization are of the highest achievable quality (Lyberg and Biemer, 2008).
 - Some examples
 - Pre-testing of questionnaires, interviewer training, probability sampling, formulas for calculating base weights, documentation systems, and so on.

Definition of QC

- ▶ A part of the quality assurance system referencing to the set of procedures and techniques aimed at verifying the quality of output of various processes
 - Some examples of QC
 - Interviewer monitoring
 - Paradata that distinguish between different kinds of variability patterns

Quality according to the 3MC surveys guidelines



- ▶ source: - <http://www.ccsr.isr.umich.edu/quality.cfm>.

Quality according to the 3MC surveys guidelines (cont'd)

- ▶ The cross-cultural survey guidelines (CCSG) are very extensive.

BUT

- ▶ To get high quality survey data, it is recommended that surveys follow them.

Examples of QA and QC in some 3MC surveys

▶ European social survey(ESS)

- Central Coordinating Team and various other groups
- Non-response treatment
 - ESS has stated minimum response rate to be 70%
 - Use of auxiliary data
 - Weighting
 - Paradata on refusal conversion
- Translation
 - TRAPD is used
- Sampling methods
 - Probability sampling is used in all participating countries
- Back-check
 - Re-interviews/ re-call 5%-10% of respondents to check if that data are collected according to specifications.
- Pretesting
 - Questionnaire and translated version of it is pretested in all participating countries.
- Conducts lots of experimentation
- Give courses.

Examples of QA and QC in some 3MC surveys(cont'd)

- ▶ **Program for International Assessment of Adult Competencies (PIAAC)**
 - Central Coordinating Team and various other groups
 - Non-response handling
 - minimum response rate requirement is 70%
 - auxiliary variables
 - non-response adjustment weighting
 - incentives
 - Translation
 - TRAPD
 - Sampling methods
 - Probability sampling method is a must
 - Pretesting
 - All survey instruments are pretested

Examples of QA and QC in some 3MC surveys (cont'd)

▶ International Social Survey Programme (ISSP)

- Methodological Group
- Non-response handling
 - Weighting (in most of the countries)
 - Call-backs
 - Incentives
 - Mixed mode
- Sampling method
 - Probability sampling method
- Translation
 - Back-translation
- Pretesting
 - Questionnaires get piloted in different stages
 - Data collection mode is pretested

Examples of QA and QC in some 3MC surveys (cont'd)

▶ European Working Condition Survey (EWCS)

- Translation
 - 5-phase translation processes; starting from translating the source questionnaire to two target questionnaire end with using back-translation and experts from Gallup for the quality of translation .
- Non-response handling
 - Minimum required response rate is 50%
 - Weighting
 - Minimum of three revisits or recalls per case
- Sampling design
 - Probability sampling
- Pretesting
 - Questionnaire through a number of pretesting
 - Translated questionnaire
 - Pilot interviews are conducted in all participating countries prior to the main study.

Examples of QA and QC in some 3MC surveys (cont'd)

▶ World Values Survey (WVS)

- Central Coordinating body
 - World Values Survey Association, that coordinates the global network social scientists.
- Non-response
 - No minimum response rate required
 - Large range between response rates achieved in countries
 - No specific non-response handling/ correction methods stated
- Translation
 - Some participating countries use back-translation , but all in all no information on what translation methods have been used.
- Questionnaire
 - Designed to gather as much information as possible.
 - Country -specific questions are allowed but in some countries items from the core questionnaire are replaced or recoded.
- Pretesting
 - No information about testing the source questionnaire
 - In some participating countries the translated questionnaire gets pretested.

Some observations

- ▶ The 1994 International Adult Literacy Survey (IALS)
 - one country told respondents IALS is a pretest, not a survey
 - another country failed to calculate the weights correctly
 - one country offered incentives, which was against the rules
- ▶ The 2007 ISSP
 - 14 out of 46 countries did not evaluate/pretest the translated questionnaire, which was mandatory
 - telephone mode was not allowed but one country collected 19% of the data by telephone interview.
 - back translation still common

Some observations (cont'd)

- ▶ Data collection mode effects
 - most comparative surveys want countries to use a single mode, for example: ESS, SHARE, TIMSS, WVS, and EWCS
 - some allow multiple modes, for instance: CSES, GWP, and ISSP
 - but only few like ESS show effort to handle mode effects
- ▶ Sampling design
 - in general all 3MC surveys have probability sampling as their standard.
 - depending on the sampling frame , countries have freedom of choosing sampling techniques.
 - in first cycle of IALS, 3 countries (France, Germany, and Switzerland) used non-probability sampling in some stage of their sampling process

Some observations (Cont'd)

- ▶ In general depending on survey topic, resources, and other factors, surveys tend to focus on some but not all errors. For instance
 - ESS, SHARE, and TIMSS focus on handling the mode effects. CSES, ISSP, and GWP use multiple modes but effects are not their main concern.
 - ESS and PIAAC try to control response rate variation by setting a minimum requirement response rate (70%) . WVS with its large range of response rates does not. From a TSE perspective both approaches are debatable.
 - SHARE and ISSP examine the effect of non-response on data quality and comparability.
 - It seem as if most of the effort goes to getting the data and make the comparisons.

Important QA and QC needs

- ▶ QA
 - Central teams
 - Good translation
 - Pretesting
 - Formulas
 - Courses
- ▶ QC
 - Monitoring
 - Paradata analysis
 - Adherence to specifications

Next steps in improving QA and QC

- ▶ Vigorously promote CSDI, the relevant literatures, and the CCSG guidelines
- ▶ Some countries need help to reach a minimum standard (Capacity building)
- ▶ Process stability is difficult to reach, in decentralized environments
- ▶ Specifications need to be justified
- ▶ Performance checks are absolutely necessary
- ▶ Reasons for deviations must be checked
- ▶ Good infrastructure needed, good examples are ESS and PIAAC.

Thank you!!!

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