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## **A standard procedure for the optimization of surveys questionnaires design**

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### ***Abstract***

Since April 2016 a new organization has been set up in Istat which centralizes in a new directory all the functions pertaining to data collection, from the design of the data collection phase up to its management.

In this context, the questionnaire design activity has been structured in a set of tasks carried on by different functional areas which work in cooperation: the production functional area (survey experts) and the data collection functional area. In particular, survey experts identify the informative content to be collected and produce a draft of the questionnaire, while the data collection experts optimize the questionnaire design in compliance with different aims:

- 1) reducing redundancy of information and response burden,
- 2) harmonizing concepts, definition and classifications,
- 3) guaranteeing uniformity in questions wording and their structuring among surveys,
- 4) improving the interview fluency,
- 5) optimizing the design according to the data collection technique.

A standard procedure has been defined for the optimization of questionnaires design in order to contain subjectivity of the analysis, guarantee the process reproducibility and to document the decisions taken. This procedure is structured in the following steps:

- i) questionnaire analysis and definition of improvement proposals,
- ii) discussion of the proposals with the survey experts and identification of aspects which need to be further investigated through ad hoc tests,
- iii) identification of testing methods, design and conduction of tests,
- iv) negotiation with survey experts for the release of the final questionnaire.

In particular, the questionnaire analysis is always performed by at least two experts, in order to compare their comments/suggestions of improvement. They work relying on checklist of aspects borrowed from the literature regarding questionnaire design. Aspects to be analyzed are classified as follows: 'General aspects' (e.g. redundancies, fluency, uniformity of elements inside the questionnaire, like units of measurement, scale factors...), 'Questionnaire structure' (sequence of

sections, of questions...), 'Questions wording' (clarity, absence of ambiguity, simplicity, suitability for respondents.....), 'Questions structure' (open-closed, number of questions items, order of questions items.....), 'Definitions and instructions' (clarity, succinctness, usability for respondents....) and 'Questionnaire layout' (it strictly depends on the technique used).

Following this analysis, proposals for the improvement of the questionnaire design are provided and discussed with survey experts and aspects to be further investigated are identified.

The tests may have different purposes, like, for instance the optimization of questions wording, of the flows among questions, the analysis of respondents' mental processes when choosing among questions items, or questions scales, the study of classification problems, the analysis of reactions to sensitive questions, etc. Depending on the purpose of the test and on time/resources constraints, different testing methods can be chosen (cognitive tests or field tests).

Following this activity, the final questionnaire is designed, in accordance with the survey experts, and the decisions are documented.

A further step has been added to this procedure for periodic surveys which uses CAPI and CATI techniques: a debriefing of interviewers conducted through a structured questionnaire aimed at identifying problems encountered (classified according to a set of predefined categories). The analysis of the results of responses provided by interviewers are taken into consideration for the questionnaire setting up for subsequent surveys.