

**COOPERATION ON MULTI-MODE DATA COLLECTION (MMDC)**  
**MIXED MODE DESIGNS FOR SOCIAL SURVEYS - MIMOD**

GRANT AGREEMENT FOR AN ACTION WITH MULTIPLE BENEFICIARIES  
AGREEMENT NUMBER – 07112.2017.010-2017.786

Methodological report  
WP4 – Deliverable 4

Date: February 6, 2019

Dag F. Gravem (SSB)

WP4: Mixed-mode designs

## Contents

1. Summary.....	3
2. Deliverable 1 – Mixed-mode experiences of European NSIs .....	3
3. Deliverable 2 – Survey communication in mixed-mode ESS surveys.....	3
4. Deliverable 3 – Recommendations for key questionnaire elements, questions and question types in mixed mode settings .....	4
5. Conclusion and suggestions for further research .....	5

## 1. Summary

The purpose of work package 4 has been to give best practice recommendations on approaches for developing web questionnaires for mixed-mode surveys on a survey/questionnaire level, as well as on a question level. The WP also aimed to investigate best practices on modes used in the contact and follow-up phases of data collection, as the total data collection design strategy should be taken into consideration before offering recommendations on web data collection.

This report describes the methodology used in the three WP4 deliverables, as well as recapitulating and discussing some of the main results. It also points to findings and recommendations from WP5, which covers some overlapping topics: Where WP4 dealt with general issues for adapting surveys and questionnaire to web data collection, WP5 handled issues specific to the mobile format, but also common issues like screen navigation and question clarification.

## 2. Deliverable 1 – Mixed-mode experiences of European NSIs

As specified in the grant agreement, deliverable 1 from WP4, “Mixed-mode experiences of European NSIs” analysed mixed-mode combinations and experiences, with an aim of offering recommendations for key ESS surveys. The analysis was to a large degree based on responses from the MIMOD survey among European NSIs, which showed a great variation of mode combinations, sequences and approaches to mixed-mode data collection, and that a lot of work is being done on fitting CAWI into the mix. The analysis of survey data was supplemented by case studies from all three main WP participants; Statistics Norway, Istat and Statistics Netherlands, written and compiled by questionnaire and data collection methodologists.

The deliverable argues that the heterogeneity of the situation and the apparent constant change to be expected is an argument in favour of generalizing the advice on questionnaire design as much as possible, without favouring one mode or type of mode. This is contrasted with Eurostat’s recommendations and guidelines, which often recommend or require specific modes, meaning possible contradictions of conflicts between WP4 recommendations and Eurostat guidelines.

Statistics Netherlands’ omnimode approach, an attempt at mode-agnostic questionnaire design, is cited as an example of a possible main model for redesign of national or European level surveys.

## 3. Deliverable 2 – Survey communication in mixed-mode ESS surveys

As described in the grant agreement, the aim of this deliverable was to describe best practice survey communication in mixed-mode surveys, including invitation strategies, reclaiming of breakoff and nonresponse follow-up. The rationale for performing this analysis is that insight into the total data collection design strategy is necessary before offering recommendations on which questionnaires/questions to offer on the web.

The deliverable reviews literature on mode use in the different phases of the data collection, including invitations and reminders in other modes than the data collection itself, with an emphasis of techniques for pushing to web.

The deliverable then analyses the communication strategies of European NSIs using the results of the MIMOD survey. One main findings in this analysis is that push-to-web is a much-used strategy as web is often used as the first mode to save money. From descriptions of contact modes and protocols, the heterogeneity of conditions under which European NSIs work is also demonstrated.

The last topic is further explored in national case studies on communication strategies, prepared by data collection specialists at Istat and Statistics Norway. Istat describes their development from a survey-oriented to a respondent-oriented communication strategy, with the development of new paper invitation letters, and digital communication on a respondents' page on Istat's website. Statistics Norway, on the other hand, presents their practically all-digital communication strategy via text messages and e-mails, and experiments with tailoring digital communication to different demographic groups.

After the submission deadline of deliverable 2, Statistics Netherlands has submitted an extensive case study, describing their experiments with push-to-web strategies using a plethora of different communication means: advance letters, reminders, flyer, letter envelopes, mobile camera scannable QR codes for accessing web questionnaires and incentives. Examples of these communication means are given, supplemented with English translations. The effect of incentives on response, target variables and representativeness is also discussed extensively. As it adds considerable value to WP4, it is available as an appendix to this technical report.

#### 4. Deliverable 3 – Recommendations for key questionnaire elements, questions and question types in mixed mode settings

According to the grant agreement, the last WP4 deliverable is a paper outlining recommendations for key questionnaire elements, questions and question types in mixed mode settings with emphasis on CAWI, including visual layout, placement and communication of definitions, to be prepared in collaboration with WP5.

The deliverable first reviews different theoretical frameworks for mixed-mode question designs and for identifying questions with possible mode effects. Among these, Pamela Campanelli et al.'s typology for identifying sources of potential measurement differences is selected as a tool for identifying critical/potentially problematic questions.

Then, five of the key ESS surveys are reviewed separately – the ICT, EHIS, EU-SILC, AES and LFS. For each survey, Eurostat documentation and some national questionnaire and data collection implementations are reviewed. This is compared with general survey recommendations found in literature. The Campanelli criteria is used for identifying problematic questions for further testing. Questionnaire development specialists from Statistics Norway, Istat and Statistics Netherlands participated in this work.

The selected questions were then tested by Statistics Norway in a test-retest design where the same questions were tested on the same test persons in CATI and CAWI respectively. The CAWI tests included both PC and mobile tests, the latter also being used for input to WP5. In the CATI tests, the methodologies used were behaviour coding and semi-structured retrospective interviewing. In the CAWI tests, which also included usability testing, eye tracking and semi-structured retrospective interviewing were the applied methods.

As specified in the grant invitation, the two main approaches of unimode and mode specific question design were investigated, with the whole ICT survey being tested as a unimode survey, and mode-specific solutions being tested for questions from both the ICT survey and the other four key surveys. The methodology used is further described in the deliverable's Appendix B, which is the test report from Statistics Norway. This report also discusses protocols and procedures for mixed-mode testing, based on materials and criteria developed by Statistics Netherlands.

Regarding the different visual and functional components of web questionnaires that were also to be tested, the results and recommendations are found in WP5's deliverable 4 on the smartphone fitness of ESS surveys. These results are taken from Statistics Norway's ICT questionnaire tests on mobile units, and Statistics Netherlands' ditto tests of their LFS questionnaire. The recommendations are summed up in WP5 deliverable 4's chapter 6. Some of the recommendations are relevant for mobile layout, but most are also valid for PC CAWI.

The last point is related to some of the conclusions from WP4's deliverable 3. The results from the tests conducted, as well as the experiences from a key country like Statistics Netherlands as demonstrated in deliverable 1, indicate that a unimode approach – which for the CAWI mode means mobile CAWI as well – should be the general recommendation. Mode specific – and device-specific – solutions require thorough pretesting before implementation.

## 5. Conclusion and suggestions for further research

The more general methodological recommendations from all three deliverables, however, is that Eurostat's own documentation and recommendations for the individual surveys are out of synch with the mixed-mode and CAWI usage reality. Ideally, Eurostat's materials should be revised and updated to reflect these facts, before work is being done in the ESS NSIs. Although this may not be immediately feasible, and not the type of recommendation that was called for in the grant invitation, it is an important point to make.

Deliverable 3 also suggests the setup of a wiki-type forum for the continuation of research and the exchange of experiences and results. Further research could and should be done on all the topics covered by WP4, including the Campanelli typology. Although highly useful for the project, the fact that it does not directly distinguish between paper and web self-completion (PASI and CAWI) limits its potential. The sheer nature of the rapid development of Internet communication technology necessitates continuous updating. Methodology and protocols for mixed-mode pretesting is yet another topic that would benefit from further exchange of opinions and practical experiences.