

Working Group Position Paper

on mixed-mode data collection in household surveys

Minutes of the 5th meeting

May 27th, 2021

Participants: Fiona O’Riordan (Ireland), Fiona O’Callaghan (Ireland), Andreja Smukavec (Slovenia), Martina Stare (Slovenia), Clelia Romano (Italy), Claudia de Vitiis (Italy), Thomas Burg (Austria), Patrick Sillard (France), Ferenc Mújdricza (Hungary), Zoltán Vereczkei (Hungary), Petra Fekete-Nagy (Hungary), Gwennaëlle Brilhault (France)

The proposed agenda for the meeting is the following:

1. Survey progress report (F. O’Callaghan)
2. Presentation of the MIMOD WPs reviews by the authors:
 - WP1 & 4: F. Beck & F. O’Riordan
 - WP2: C. De Vitiis & P. Sillard
 - WP3: A. Sumkavec & M. Stare
 - WP5: F. Mújdricza & Z. Vereczkei

Introduction of the meeting and Survey progress report

In introduction, **P. Sillard** explained that [the work of the group was presented](#) to the DIME-ITDG steering group on May 21. A new schedule of the project was then proposed and agreed:

- The position paper should be finalized by the group by the end of August
- Sent to Member states for written reaction by mid-september
- Returns of written reactions: mid october
- Final paper for discussion: end of october
- Discussion in DIME-ITDG and DSS Autumn session (to be fixed in November)

It means that the position paper group should meet, on regular meetings, in end of June, end of July and end of August. Some additional meetings might be useful somewhere in August or September in order to be ready to send the draft paper by mid September.

C. De Vitiis asks for the plans of analyzing the survey. **Z. Vereczkei** suggests to divide the work on the survey analysis, according to the questionnaire sections. The proposal, made in the meeting, was to divide the work, at least in two groups: one for Part 1 and one for Part 2.

The composition of the groups of analysis should be defined before beginning the work on the raw data (mid-june). **P. Sillard** proposed then that volunteered should tell on which part they would like to work. The following proposals of work were sent after the meeting:

- **A. Smukavec** on question 8.1 to 8.3 and part of the questionnaire concerning the LFS survey
- **F. Mújdricza, Z. Vereczkei** and **P. Fekete-Nagy**: 1.4 and sub-questions, 8.4 and sub-questions, 8.7 and sub-questions

The proposal is then to share the list of questions and to put names in front. The list will circulate as soon as possible in order to have clear view of who is going to do what before mid-june. **F. O’Callaghan** is going to send a mail on that to organize the work. *[On this subject see also the Conclusion]*

Survey progress report: **F. O’Callaghan** explains that presently, no country has answered the questionnaire. Some questions were asked by some member states. For the countries represented in the Position Paper group: most of us are collecting the numbers and should be ready to fill in the questionnaire before the 15th of June (maybe a little bit later for Hungary said **Z. Vereczkei**). It appears that in some countries, the answer involves a few units, so it needs a bit of organization.

A. Smukavec suggests to send a reminder at the beginning of June to remind the countries to fill in the questionnaire.

Reviews of MIMOD packages

MIMOD WP2

C. De Vitiis presents the main conclusions of MIMOD WP2. There were 3 objectives:

- Provide an overview of the literature regarding evaluation and treatment of mode effects with a discussion of the different assumptions
- Evaluate the suitability of some selected approaches in practical applications in survey context: (a) re-interview design with a cost-benefit analysis and (b) practical application of a set of methods for treating mode effect in a real social survey
- Provide countries a general guidance for dealing with mode effect

4 deliverables were produced: review of literature, description of experimentations (a) and (b), production of a set of guidelines.

The main issue is to disentangle mode effects into measurement effect and selection effect, so all the presented methods are devoted to this goal. The methods are based on models. **P. Sillard** wrote that two points should be further studied, so they could be mentioned as so in the position paper. Apart from that, in the MIMOD questionnaire, none of the NSIs reported to have a research program on mode effects. We have also such questions in the Covid crisis questionnaire so we will see if things have changed. The proposal, in the Position Paper, could be to expand the review of the literature and also the experiences the countries have conducted recently because it is a difficult task to identify mode effects. Moreover, we could establish a network of countries willing to work on this issue in a coordinated way.

The follow-up discussion shows that countries (Ireland, Austria, Hungary, France) are perfectly aware of this issue. Some (Austria, Hungary, France) have already tried to measure but basically, no correction is made at the moment. Member States are more involved in a capitalization process to

improve the design of surveys and to control mode effects. **F. O’Riordan** explains that the change of mode during the crisis was more sudden than controlled, so it was not possible to work on these methodological issues properly in most cases. In Italy, the mode effect analysis is not systematic as well. Since MIMOD, some new experiences were acquired. **C. De Vitiis** explains that some work is currently done on mode effects in the Italian Census. **P. Sillard** says that France is more or less in the same situation.

MIMOD WP1 and 4

F. O’Riordan presents the conclusion of the MIMOD WP 1 and 4.

The deliverables of WP1 was (i) a report on the “State of the art of mixed-mode” and (ii) a methodological report on how to best combine data collection mode. In particular, a set of definitions is given concerning:

- *Concurrent design*: different data collection are in field at the same time
- *Sequential design*: modes are administered in a sequential time period, one after the other
- *Partly sequential – partly concurrent design*: the first data collection mode remains on the field when the second one(s) is(are) made available to respondents
- *Adaptive design*: different modes to different sub-populations on the basis of frame data, administrative data, paradata (also different effort for timing and number of calls and visits, incentives, etc.)

Additional information will come from the new questionnaire we have sent.

The topics related to mixed mode strategies are discussed in the WP reports: combination of modes, same or different mode sequence in one survey design, mode choice from respondents and the use of incentives.

Considerations looked at by **F. Beck** and **F. O’Riordan**, in relation to the recent surveys conducted during the pandemic, are the following:

- Can we now consider that CAWI is a natural first mode for sequential designs in cross sectional surveys ? Is partly sequential-partly concurrent a promising third way ?
- Identify the main objectives and risks as viewed by NSIs.
- Was the pandemic an opportunity to test adaptive design protocols ? From an Irish point of view, it certainly was.
- Consideration around adaptive design – do we profile the respondent?
- How do we deal with partials? It is a real issue when we use CAWI.

Some additional considerations, for which we should get some interesting additional feedback from our questionnaire, are:

- role of communication (social media, press)
- in sequential protocols, should every mode be described as soon as the advanced letter or is it preferable to adopt a « push to web strategy » and wait for the reminders to mention the remaining modes (paper or interviewers) ?
- technology
- role of incentives

WP4 is much more about the questionnaires. Deliverable 1 was on questionnaire differences, error and consistency checks, dealing with “don’t know” and item nonresponse. Deliverable 2 was about contact modes. Deliverable 3 gives recommendations for key questionnaires elements, questions

and question types in mixed modes in the view of developing omnimode questionnaires. This omnimode should be taken as a starting point, because it is simpler to program and administer, but also in order to avoid measurement differences due to specific questions. But this might not be always possible and it is necessary to continue exploring mode specific solutions using cognitive and usability testing. Campanelli typology should be updated. And we should also address the following issues in addition:

- simplification of questionnaire that is made necessary by mixed mode surveys: is it effective in recent surveys? Is it necessary to change European regulations towards omnimode questionnaires?
- attrition when surveys have been divided into several waves;
- duration of the mixed mode surveys including web which should not then exceed 20-25 minutes according to literature.

F. O’Riordan thinks that the questionnaire will address some above mentioned issues so it should be helpful. Concerning the adaptation of European questionnaire, **N. Lamei** mentions that there is a currently on-going grant to improve European questionnaires.

C. Romano comments on the point on partly-sequential and partly-concurrent way. Italy has a good experience of this through the Census. Since 2018, the new design of the Italian Permanent Population Census provides for the carrying out of a sample survey of approximately one million households each year.

The survey is carried out by Cawi/Capi (and in some cases also by telephone interviews).

In the first month of the fieldwork, the households can participate only filling in the web questionnaire (on their own or, if they prefer, at the municipal offices). After the first month, CAPI interviewers take to the field and go to the household address in order to administer the CAPI interview (some municipalities also contact the survey units by telephone, but these are marginal situations). During this period the web questionnaire remains open and accessible, so respondents who prefer can fill in (or continue to fill in) the questionnaire in Cawi mode. The web questionnaire is closed a week before the closing of the survey, in order to give to the interviewers the last chance to contact the non-responding units (reducing the risk that they refuse saying that they prefer to fill in the web questionnaire).

Letting a concurrent design is a good idea when the time for field work is short. So we should emphasize that the design should be adapted to the time given for data collection.

F. Mújdricza and **F. O’Riordan** emphasize that even if omnimode approach is the starting point, there should be some caveats, especially in relation to mode-specific measurement effects. These are not really addressed in the MIMOD report so it might be useful to take this issues on board for the Position paper. **F. Mújdricza** explains that it is the basic question of the choice of a “formula equivalence” or “functional equivalence”: should the questionnaire be formally equivalent for each modes, or functionally equivalent? But it might be difficult to test these equivalences.

MIMOD WP3

M. Stare presents the WP3 which is about the case management.

There were 3 main goals in this work package:

- overview of data collection systems in use in the ESS
- identify organization and best practice solutions adopted in the ESS
- identify most important components of a modal data collection system

Having a central case administration seems to be the key element of a new data collection system. MIMOD proposes a standardization protocol. Within the ESS, the situation is heterogeneous. There are 4 dimensions: the degree of component integration, the component completeness, the degree of in-house development and the survey integration.

A large degree of component integration, when the components are linked to each other (the information is automatically transmitted), clearly helps and in that case, most important domains of data management are covered. Generally, social surveys and business statistic survey are separated in most of countries. But from a technical point of view, some key elements could be shared. So it could be useful to consider the question of some level of integration between the two spheres.

The tools for data collection can be developed in-house or bought from a private company. Many NSIs develop in-house. Buy why do they do so? In terms of input harmonization, NSI in-house development is more difficult to share. So the report underlines that Eurostat should encourage countries to work together in the development of tools.

The level of sharing the development of data collection tools at the European level then should be discussed. This could be taken on board in the Position Paper.

M. Stare adds that Slovenia has its own software but there are issues of resources to modernize it. **T. Burg** explains that in Austria, the system is highly integrated and works well. It is important to share the reporting rules. And R code/package could be developed and shared in order to support European standards on this subject or a European quality report. **C. Romano** underlines that this topic is challenging. In Italy, there are survey-specific systems and the goal is to develop a common system. It is complicated to develop or to find a tool that meets all the needs. Blaise was tested for a survey, but the final evaluation was negative. So the way will be long on this field. **Z. Vereczkei** agrees that there should be a trend towards a common tool. In Hungary, the choice is now to develop an in-house system, not because Blaise or other systems are not good, but because of IT compatibility issues. For example, when there is an IT-migration, it might be complicated or even impossible to migrate external tools. **G. Brilhault** explains that France has begun a program for developing internal tools for managing multimode surveys.

MIMOD WP5

F. Mújdricza presents WP5 which is devoted to the possible uses of mobile devices in CAWI (see attached slides). Two main topics are covered here: (i) mobile device sensor data and (ii) mobile device mode questionnaire.

(i) is not a true option in a crisis such as Covid-19 as it is not yet developed in the ESS at the moment. (ii) is an option but there is still some work to be done to address all the issues with respect to this subject.

Concerning sensor data, there are problems such as data access, data handling and quality. But the most important one is probably the respondent unwillingness which is currently rather high. It is still in a very early development phase so we can forget about this issue for the time being.

Concerning the use of mobile devices, there are three dimension of concerns raised by the report:

- screen size
- navigation

- interview duration

Presently EHIS and SILC are not yet suitable in that perspective. ICT and EFT are promising in this respect, provided a slight adaptation of the questionnaire.

The report mentions that since smartphone are omnipresent, then we could even imagine that the questionnaires are first designed for these devices. And the report also argues that smartphones may reveal questions prone to measurement error. But the report does not seem to be very convincing on this topic.

Anyway, the report underlines some important directions of development concerning the mobile device mode: the length of the questionnaire should be reduced, get rid of grid questions, minimize open questions, multi-response questions should be replaced by multiple questions. And there are advantages of mobile devices in the CAWI mode: the omnipresence of these devices makes it possible to motivate respondents and it is possible also to fill in questionnaires everywhere at anytime, even if this may cause some problems in the quality of responses (issue of filling in during “residual times” during which the attention and motivation are rather low, and the risk of being interrupted is high).

The report does not really discuss methodology and design issues related to multimode, including a mobile mode. In this case, the adaptation of questions may cause a break in the functional equivalence between the various modes; this is not really discussed in the report.

At the end, there are questions pending:

- should the ESS questionnaire be revised for mobile device first?
- Should we develop a mobile device IT platform?
- Would the respondents prefer to use mobile device or PC's in the CAWI mode?
- What are the quality risk associated to the mobile device mode?

On all these questions, an ESS initiative deserves to be launched.

P. Sillard asks if the report makes the link between the issue of the mobile device mode and that of responsive design in the CAWI mode. **N. Lamei** explains that in Austria, the CAWI mode is by essence responsive design, so the issue of questionnaires designed for the smartphone first is treated at the origin because the CAWI questionnaire must be responsive design. The functional equivalence appears to **N. Lamei** a very important issue. When a survey is moved to CAWI, there are most of time breaks in time series but we can also take it as a chance to ask questions in a better way.

Conclusion

P. Sillard concludes by proposing an organization of the work in June and for the next group meeting. The proposal is the following:

- concerning survey analysis, the idea is to share the work according to some subsets of questions, each subset being analyzed by a volunteered group. **F. O’Callaghan** will circulate a proposal of subsets and people willing to participate in the analysis of a given set will be asked to put their names in front (see above the proposals by **A. Smukavec** and **F. Mújdricza**, **Z. Vereczkei** and **P. Fekete-Nagy**). The goal is to define the subsets and the composition of the groups by mid-June, before the first survey returns.

- In parallel, an outline of the Position paper based on the Mimod material will be prepared by **P. Sillard** and **G. Brillhault**. A round of exchange might be useful on this outline before the next meeting of the group. Those who wish to participate in this first outline of the Position paper are welcome. Please tell **P. Sillard**!
- At the next meeting, a draft version of the questionnaire analysis could be discussed, as well as the outline of the Position paper.

This proposal is convenient to the group.

Annex: slides presented at the meeting

- by **F. O’Riordan** on MIMOD WP 1 & 4



- by **F. Mújdricza** on MIMOD WP 5

