

EU Twinning project activity D4: Cognitive aspects in questionnaire design: Mixed mode

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Causes of mode-specific measurement error

Modes vary in

- Extent interviewer involvement
- Mode of stimulus presentation: aural or visual
- Question format
- Respondent control over questionnaire

This results in differences in

- the way question is processed
- level of effort (satisficing)
- willingness to disclose (social desirability bias)

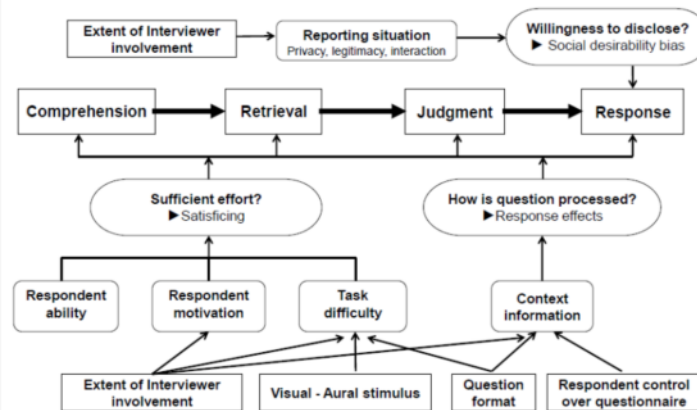
Source: Jäcke et al. (2011)

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Conceptual framework

Causes of mode effects (Jäckle et al, 2011)



General principle : Identical unless...

Identical design over modes *unless there is a good reason to deviate*.

Refers to all aspects of the questionnaire design including

- introduction and instruction texts
- wording of questions answer options
- response task (be aware of "select all that apply" and open questions coded by interviewers)
- design of answer spaces (size, delineation...)
- order of the questions
- edit checks / warnings

Census Bureau (2007)

“The design of questions for a particular mode should strive to maximize quality of data collected in a specific mode and to minimize differences in data collected across modes”.

See: <http://www.census.gov/srd/mode-guidelines.pdf>



Some good reasons to adapt to mode

1. In order for instructions and introductions to make sense they must be adapted to the mode (e.g. “click next to continue” or “I will now read out a list of...”).
2. Using intelligence in electronic questionnaires increases quality of data, reduces response burden and meets respondents’ expectations (e.g. routing, automatic fills, automatic calculation).
3. Flow of the interview has different requirement in IA than SC. E.g flow may be seriously disturbed if interviewers have to read out the same instructions or examples when repeating the same set of questions, whereas these should be available in a SC mode.



Sensitive questions

- Best to ask in self completion (SC) modes
- If mixed mode includes face to face (F2F) interview ask sensitive questions SC
 - Better not use CATI in a mixed mode design for sensitive questions??
- Hard to predict what is sensitive! Test for this in cognitive pre-tests.



Non-sensitive factual versus subjective

- Subjective questions more likely to show mode effects than factual questions.
- Especially in CATI positivity bias (satisficing, social desirability?)
 - Better not use CATI in a mixed mode design for subjective questions??
 - Better to only use web and paper for questionnaires with many subjective questions ?? (with CATI only for motivation??)



Difficult questions

- Interviewer may motivate respondents, but pace of CATI interview has negative impact on time to think.
- Modes that offer visual presentation (SC and F2F with show cards) less cognitive burden for respondents (of course only if they can read well!)
- Offer difficult questions that require high cognitive effort preferably F2F and if not possible SA??
- If offered also CATI, include introductory text and/or questions to allow and motivate respondents to think??



Number of response options

- For CATI 3-5 options possible
- Also in SC modes or F2F with show cards: long lists problematic (primacy effects).
- Use branching for ordinal scales in all modes, but on paper this may be problematic (routing error).
Alternative: reduce number of categories.
- More use of middle category in SC: if possible avoid middle category in mixed mode designs involving SC and IA??



Don't know

- Offer explicitly in all modes if a relevant option.
- Allow spontaneous don't know in IA modes
- Maybe simulate IA way of dealing with spontaneous don't know in SA computerized modes by only offering it if a questions is skipped.



Routing

- May cause mode effects when mixing web and paper because on paper respondents still see what they are skipping and may use that information to change their answer to routing question.
- If this is a big concern and routing is not too complex it could be an option to show the skipped questions "greyed out" (so respondents can still see them).



Some useful links

ESSnet project on mixed mode design LFS:

<http://www.cros-portal.eu/content/data-collection>

Website dedicated to websurvey methodology

www.websm.org

CBS description of validated methods and documentation
of research papers [http://www.cbs.nl/en-](http://www.cbs.nl/en-GB/menu/methoden/default.htm)

[GB/menu/methoden/default.htm](http://www.cbs.nl/en-GB/menu/methoden/default.htm)

