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National Centre *for* Social Research

Mixed Modes and Measurement Error

Comparing face-to-face, telephone and web modes

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Britain's leading independent social research institute

Research Team

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Brief background

- Increasing interest in mixing modes:
 - ▶ to improve response rates
 - ▶ to save money
- But the same survey questions asked in a different modes are not necessarily equivalent

Main Objective

- Practical advice on how to improve portability of questions across modes
 - ▶ Which mode combinations are likely to produce comparable responses?
 - ▶ Which types of questions are more susceptible to mode effects?

Mode classification

- **interviewer presence (face-to-face, telephone, none)**
- **delivery of question (visual, aural)**
- **response list (visual, aural)**
- **recording of responses (oral, written)**

Research Design

- A literature review & framework of mixed modes
 - ▶ develop a theoretical framework
 - ▶ identify gaps in evidence base and formulate hypotheses to address gaps
- Quantitative data analysis
 - ▶ test hypotheses using existing datasets and new experimental data
- Cognitive interviewing
 - ▶ attempting to identify causes of mode effects

Mixed Modes experiment

- Follow-up surveys to NatCen Omnibus & BHPS
 - ▶ focus on f2f, tel and web comparisons
- Key features of design
 - ▶ Experimental design with random allocation
 - ▶ Repeated measures (enables estimation of mode effects in measures of change)
 - ▶ Comparison of “fresh” sample versus “seasoned” panel sample

2008

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Omnibus

20 BHPS
questions

Other
modules

Jan-Jul 2009

F2F interview after 6 months

20 BHPS
questions

Another 60
questions

Tel interview after 6 months

20 BHPS
questions

Another 60
questions

Web q'naire after 6 months

20 BHPS
questions

Another 60
questions

Nov-Dec 2009 2010

Cognitive interviews
after 6 months

BHPS
W18

20 BHPS
questions

Other
BHPS
questions

Tel interview after 6 months

20 BHPS
questions

Another 60
questions

Web q'naire after 6 months

20 BHPS
questions

Another 60
questions

BHPS W19
(12 months after W18)

20 BHPS
questions

Other BHPS
questions

Study progress...

- A literature review & framework of mixed modes
 - ▶ Theoretical framework completed
 - ▶ Literature review almost completed
- Quantitative data analysis
 - ▶ Experimental data collected
 - ▶ Preliminary analysis to inform cognitive research completed
- Cognitive interviewing
 - ▶ Currently underway

Hypotheses

- Short versus long response lists
 - ▶ Effects of interviewer presence on satisficing
- Agree-Disagree scales
 - ▶ Is acquiescence caused by satisficing, cognitive ability, social desirability?
- Ranking versus Rating
 - ▶ Effects of interviewer presence
- Fully-labelled versus End-labelled scales
 - ▶ Effects of visual stimulus and interviewer presence
- Showcards versus No Showcards (face-to-face interview)
 - ▶ Effects of visual stimulus
- “Branched” versus “Non-branched” questions
 - ▶ Effects of item design (no mode differences expected)
- “Yes/No” versus “Code all that apply”
 - ▶ Effects of item design

Question selection

Questions were designed to vary by...

- Question task difficulty
- Question sensitivity
- Question type
 - ▶ Satisfaction
 - ▶ Other attitudinal
 - ▶ Behavioural
 - ▶ Other factual

Initial analyses

- For example...
 - ▶ indicators of satisficing (primacy, recency, middle category effects)
 - ▶ levels of missing data
 - ▶ indicators of acquiescence
 - ▶ duplicate ranks or ratings
 - ▶ different response patterns by mode / format

A few of the interesting results so far...

“Yes/No” vs code all that apply

- ▶ Face-to-face and telephone interview respondents more likely than web respondents to say “yes” in a Y/N series about reducing poverty. Not found for the comparable code all that apply version
- ▶ Possible reasons... social desirability, acquiescence?
- ▶ This is one area we will be examining in the cognitive interviewing

A few of the interesting results so far...

- Agree-Disagree scales
 - ▶ More acquiescence in the interview modes
 - ▶ Web respondents more likely to “satisfice” by picking middle category
 - ▶ Possible reasons... Does middle category response reflect least cognitive effort, and would that be more likely in web?
 - ▶ The cognitive interviews will explore both these occurrences

A few of the interesting results so far...

- Showcards vs no showcards in face-to-face interviews
 - ▶ Showcards had little effect on response in comparison with equivalent question presented without showcard
 - ▶ Possible reasons... Particular questions and responses used in experiment?
 - ▶ The cognitive interviews will explore this

A few of the interesting results so far...

- Short vs long response lists
 - ▶ Telephone respondents more likely to select first category on two satisfaction questions (both short and long versions)
 - ▶ Possible reasons... Respondents interrupting interviewer to speed up interview? Primacy?
 - ▶ The cognitive interviews will explore this

And finally...

- The mixed modes experiment provides a large and rich dataset with which to examine mode effects
- A number of interesting mode findings have already been identified, but results presented reflect work in progress (eg. BHPS dataset still to be analysed)
- Cognitive interviewing will be used in an attempt to shed light on the preliminary experimental results

For more details on this project, contact:

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