SURVEY FUTURES

SURVEY DATA COLLECTION METHODS COLLABORATION

Complex Measurements in online self-completion surveys: evidence, practice and challenges

Matt Brown, **Lisa Calderwood**, Cristian Domarchi, Helena Koerber and Olga Maslovskaya

Survey Futures Conference | 18 June | City St George's, University of London

University of Essex

University of Southampton

UKRI Economic and Social Research Council

CITY University of London EST 1894

Ipsos

LSE The London School of Economics and Political Science

Manchester 1824 The University of Manchester

National Centre for Social Research

NCRM National Centre for Research Methods

Office for National Statistics

UCL

Ulster University

University of Leeds

Unil | Université de Lausanne

verian

Warwick The University of Warwick

Research Strand 5: Complex Measurements in Online Surveys

Aim: Understand current practice and improve quality of complex measures collected in online surveys.

Key Areas

- Retrospective Life Events
- Cognitive Function Measures
- Consent to Data Linkage
- Occupation & Industry Coding

University of Essex
University of Southampton
UKRI Economic and Social Research Council

Retrospective Life Events

Key learnings

- Retrospective calendars can improve recall quality, as their visual structure helps respondents contextualise events and reduce recall errors and omissions
- Self-administered online retrospective calendars are feasible but require careful design, including clear instructions, examples, and interactive help features
- Pre-loading information from previous waves or earlier responses can improve recall accuracy and reduce respondent burden in longitudinal surveys
- Questionnaire-based recall is suitable for short timeframes; calendar approaches perform better for life histories
- Dependent interviewing techniques can reduce recall errors and spurious changes in longitudinal surveys

Retrospective Life Events

Areas for Future Research

- Further testing of self-administered retrospective calendars, particularly regarding usability, response burden, and data quality in online surveys
- Evaluation of device compatibility and interface design, especially for complex calendar instruments used on mobile devices
- Comparative research on different retrospective data collection methods, including calendars, conventional questionnaires, and event-triggered approaches
- Investigation of how instrument complexity and sensitive topics influence breakoffs and data quality in retrospective online surveys

Evidence Review

Report 4:

Retrospective measurement of life events in online self-completion surveys:

Evidence Review

Cristian Domarchi, University of Southampton
Olga Maslovskaya, University of Southampton
Lisa Calderwood, University College London
Matt Brown, University College London

April 2025

University of Essex
University of Southampton
UKRI Economic and Social Research Council

Survey Practice Guide

Survey Practice Guide 3:

Retrospective measurement of life events in online self-completion surveys

Cristian Domarchi[1], Olga Maslovskaya[1], Lisa Calderwood[2], Matt Brown[2]

[1]University of Southampton, [2]University College London

October 2025

University of Essex

University of Southampton

UKRI Economic and Social Research Council

Cognitive Function Measurement

Key learnings

- Adapting tests originally designed for in-person administration can introduce mode effects.
- In mixed-mode surveys, cognitive tests should ideally be administered through self-completion even when interviews are conducted in person
- Calibration studies are recommended when transitioning from interviewer-administered to online cognitive assessments in longitudinal surveys
- Survey implementation should prioritise usability and accessibility, including clear instructions, practice tasks, intuitive interfaces, and support for respondents with lower digital literacy.
- Paradata and response behaviour may complement, but not replace, direct cognitive assessments.

Cognitive Function Measurement

Areas for future research

- Validation of online cognitive test batteries, particularly regarding reliability across devices, screen sizes, and internet conditions
- Mode effects in cognitive assessments conducted as part of mixed-mode surveys including interviewer-led modes, both in terms of measurement and post-survey adjustments
- Development and evaluation of novel measurement approaches, including gamified cognitive tests and smartphone-based assessments
- Research on the use of survey response behaviour and paradata as proxies for cognitive functioning, including the strength and robustness of these associations
- Investigation of device-related effects on cognitive performance, including differences between desktop, tablet, and smartphone participation

Evidence Review

Report 9: Cognitive function measurement in online self-completion surveys: Evidence review

Cristian Domarchi[1], Olga Maslovskaya[1],
Lisa Calderwood[2], and Matt Brown[2]

[1]University of Southampton, [2]University College London

November 2025

University of Essex

University of Southampton

UKRI Economic and Social Research Council

Survey Practice Guide

Survey Practice Guide 6: Cognitive function measurement in online self-completion surveys

Cristian Domarchi[1], Olga Maslovskaya[1], Lisa Calderwood[2], Matt Brown[2]

[1] University of Southampton, [2] University College London

February 2026

University of Essex

University of Southampton

UKRI Economic and Social Research Council

Consent to Data Linkage

Key learnings

- Data linkage can improve data quality, reduce respondent burden, and expand research opportunities
- Securing consent remains a major challenge; non-consent can introduce bias and reduce the value of linked datasets
- Consent rates are consistently lower in web surveys than in interviewer-administered surveys
- Most UK online and mixed-mode surveys use similar consent approaches:
  - Clear, concise explanations of data linkage with supplementary information provided
  - Opt-in consent requested, typically towards the end of the questionnaire
  - Multiple linkage requests usually presented sequentially in a dedicated consent section
- There are some exceptions to this approach. Some surveys, particularly government and ONS surveys, do not require separate opt-in consent for data linkage

Consent to Data Linkage

Areas for future research

- There is limited robust evidence on how to improve consent rates in web surveys
- Further research is needed on design features such as placement, wording, and framing of the consent question in self-completion surveys
- Additionally, given the persistent challenges in obtaining consent in online surveys, more innovative approaches should be explored, including incentives, opt-out or embedded consent models, and targeted follow-up of initial non-consenters

- **Evidence Review and Survey Practice Guide coming soon!**

SURVEY FUTURES

SURVEY DATA COLLECTION METHODS COLLABORATION

Thank you for your attention!

University of Essex

University of Southampton

UKRI Economic and Social Research Council

CITY UNIVERSITY OF LONDON EST 1894

Ipsos

LSE THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

MANCHESTER 1824 The University of Manchester

National Centre for Social Research

NCRM NATIONAL CENTRE FOR RESEARCH METHODS

Office for National Statistics

UCL

Ulster University

UNIVERSITY OF LEEDS

UNIL | Université de Lausanne

verian

WARWICK THE UNIVERSITY OF WARWICK