

NatCen

Social Research that works for society

Cognitive interviewing

Practice and uses

26 March 2015



What we'll talk about

- What Cognitive Interviewing is
- Its uses
- Example 1 – Developing measures/ Qs
- Example 2 – Diagnosing problems with existing measures/Qs
- Example 3 – Testing communications
- Example 4 – User testing



What is cognitive interviewing?





Cognitive interviewing is a set of qualitative techniques that explore people's thought processes

What's involved

- Exposure to stimulus/task
- Think aloud
- Probing
- Other tools
 - Card sorts
 - Vignettes
 - Ratings
 - Observation/ eye tracking

**Developing new
measures or
survey Qs**



2.

CI as part of question development

Techniques

- Task completion
- (Observation)
- (Think aloud)
- Probing (concurrent and/or retrospective)
- Feedback Qs

Aims

- Are measurement aims being met?
- Are people willing & able to answer Qs/ complete task?

Applications

- New questions
- New questionnaires/ tools

Developing new Qs on fraud & cybercrime

Context

- fraud & cyber-enabled crime not currently included in main CSEW estimates
- this study aimed to develop new Qs

Parameters

Fitting into CSEW

- mindful of how many Qs we can ask
- how data collected (face-to-face)
- the Q approach (screener followed by victim form)
- target population - households

What the project involved

Stage 1

- explored how public describe & understand fraud and cyber crime
- evaluated methodologies & survey questions
- Informed development of new Qs

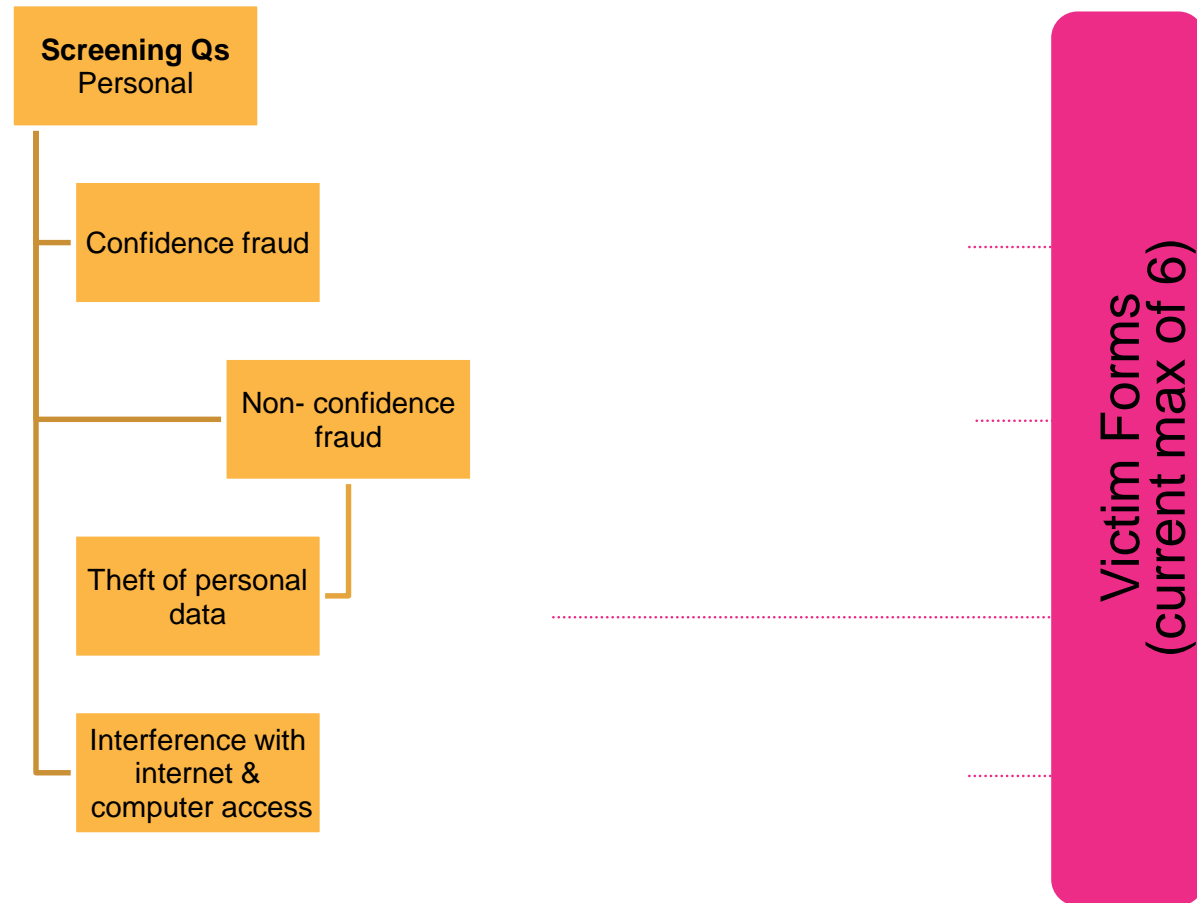
Stage 2

Small scale testing of new Qs to assess public reactions & understanding

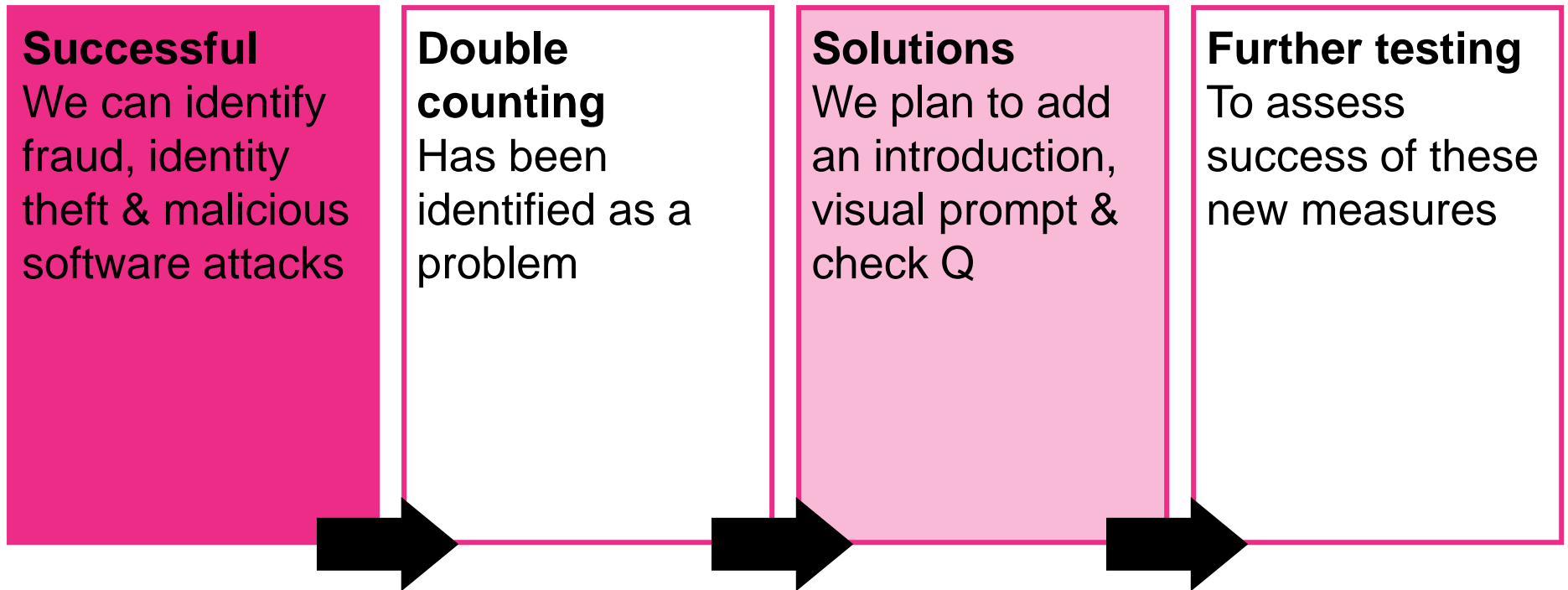
Stage 3

- Made recommendations on Q wording
- Proposals for further (quantitative) testing

Questionnaire structure



New screening questions (Qs)

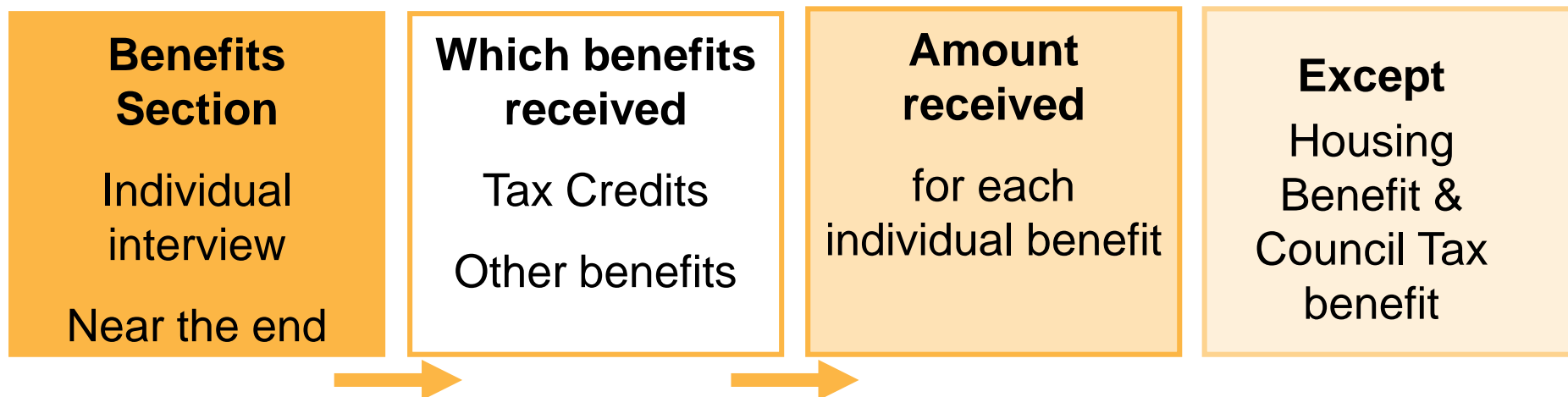


Diagnosing problems



3.

FRS benefit questions



Evaluation methods

Secondary analysis

Comparing individuals' survey responses with their admin data

Focus groups

with NatCen FRS survey interviewers

Cognitive interviews

with former FRS respondents

Desk review

of other survey approaches to asking about state benefits

Reliability

Administration

Validity

Alternatives

Findings from cognitive interviews

Structural

- order and labelling of benefits on the show cards
- documentation not always helpful
- confusion between household and individual benefits
- entitlements and benefits

Availability of information

Respondents don't always know the information being sought.
Documentation not always available

Using CI to test other types of communication



4.

Wider applications

- CI methods are being used to test other types of communication. Examples include:
 - Advance letters
 - Consent forms
 - Instruction manuals
 - Websites and online forms
 - Information leaflets (e.g. public health)
 - Ballot papers and voter registration forms

Same methods, different aims

Techniques

- Exposure to test materials
- Observation
- Think aloud
- Probing
(concurrent and retrospective)

Aims

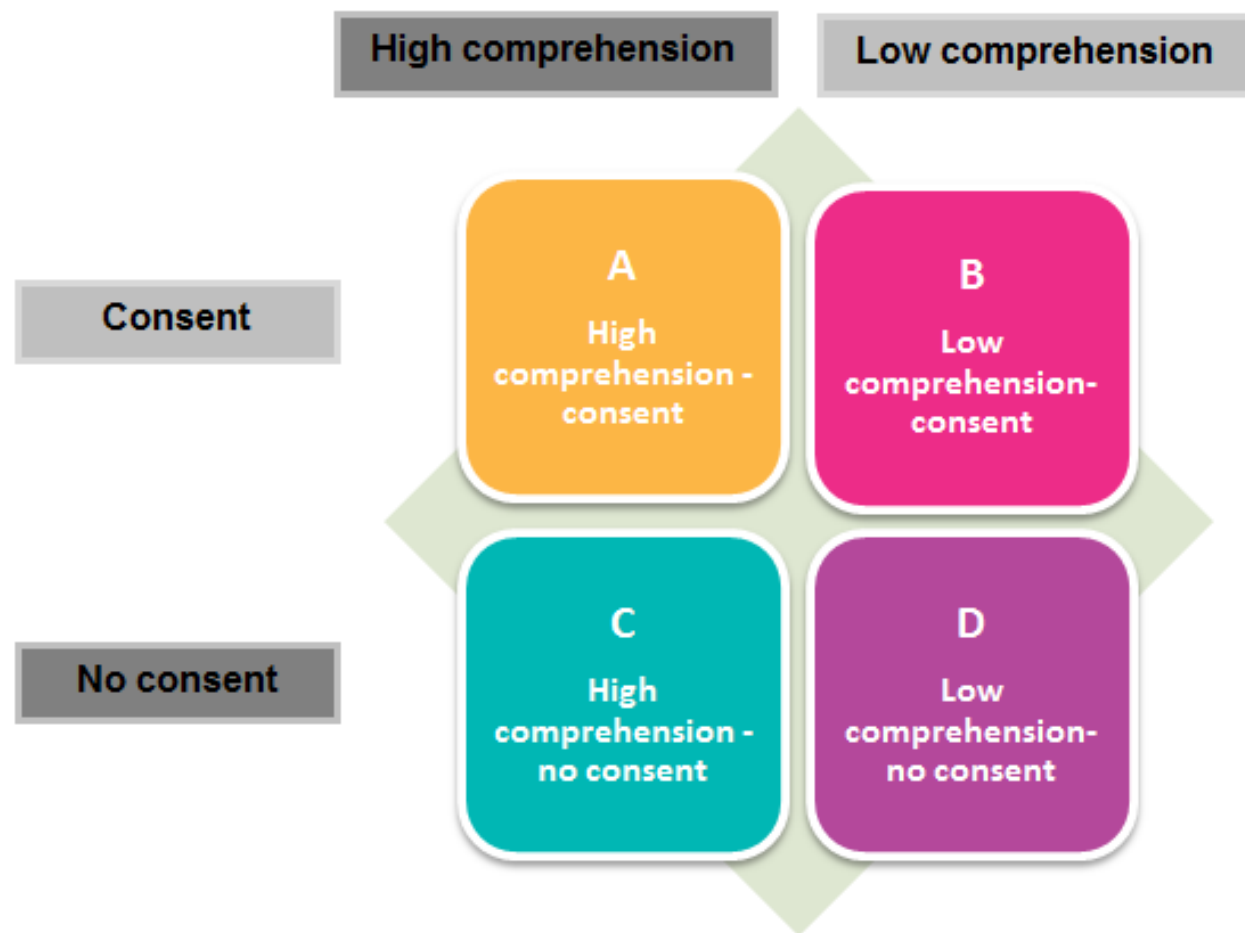
- Do target audience understand information?
- Are they able to act on info?
- Are they willing to act on info?
- Is information missing?

Example: Testing consents to data linkage

- Family Resources Survey
- Welsh Health Survey
- Next Steps (LSYPE)
- Life Study



Typology of comprehension and consent



Taken from Beninger et al (Forthcoming) *Next Steps :Exploring data linkage consent issues*, prepared for the Centre Longitudinal Studies

Example: Testing 'Return to Player' messages

- By law gaming machines must display RTP messages
- CI methods used to explore:
 - Understanding of RTP messages
 - Perceived utility of RTP message
- Commissioned by the Responsible Gambling Trust



NO PRIZE
GREATER IN VALUE THAN

£500

CAN BE WON FROM THIS
MACHINE IN ANY ONE GAME

MACHINE
MALFUNCTION
VOIDS GAME

THIS IS A CATEGORY B3 MACHINE
THIS MACHINE HAS
AN AVERAGE PAYOUT
OF AT LEAST 90%

DUE TO THE SEQUENCING OF THE REELS
CERTAIN WINNING COMBINATIONS ARE
NOT AVAILABLE IN EVERY GAME

THIS GAME IS COMPENSATED AND
MAY BE INFLUENCED BY PREVIOUS PLAY

THE OUTCOME OF ANY GAME
OR FEATURE IS NOT NECESSARILY THAT SHOWN
BY THE ODDS DISPLAYED

£1
PLAY

Finders Keepers

NEXT

90%

Reasons RTP messages misunderstood

Use
technical
language

Only in
English

Use
mathematical
concepts

Combining CI with user testing



5.

User testing: Further commonality of methods

Techniques

- Task completion
- Observation
 - Video-recording
 - Eye-tracking
- Think aloud
- Probing (concurrent and retrospective)
- Feedback Qs

Aims

- How easy or difficult is it for your target audience to use a product?

Applications

- Computer/software development
- Website development
- Games/ tools/ equipment testing

Example: Testing web questionnaires

- Understanding Society
- Next Steps (LSYPE)
- Consumer Payment Survey (CPS)
- Student Income and Expenditure Survey (SIES)



Eye-tracking case study

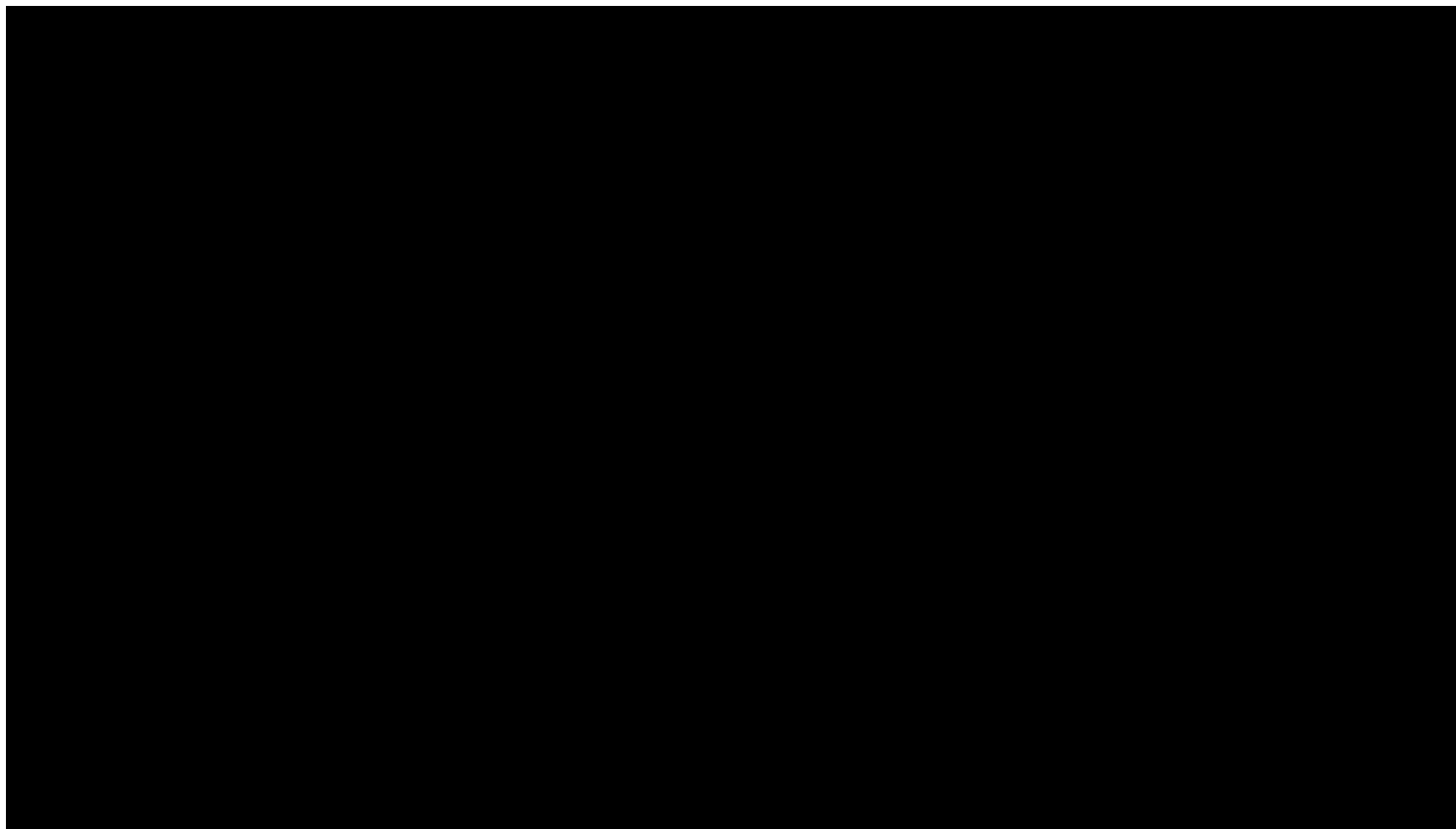
■ Aims:

- To test the design the first generation web questionnaire to be used for Understanding Society (IP5)
 - Ease of logging in/ using different question formats/ skipping Qs

■ Methods:

- Programme a 'short' version of the instrument
 - Login page and different question formats (scales, grids, dates etc)
- Respondents complete short questionnaire with eye-tracker
- Scenarios given such as 'try and skip this question'
- Retrospective think aloud and probing whilst reviewing gaze-replay.

Gaze-replay video



How does eye-tracking supplement cognitive interviewing?

Cognitive elicitation method		Impact of eye-tracking	
Observation		✓	Increased accuracy
Think Aloud	Concurrent	-	No impact
	Retrospective	✓	Gaze-replay can prompt participants
Probing	Scripted	-	No impact
	Spontaneous	✓	Better targeting based on improved observations

Final thoughts



6.

Benefits and limitations

- **Versatile**
- **Qualitative methodology**
 - Can map issues but cannot provide evidence on prevalence
- Iterative testing is best
 - Practical constraints
- Can detect 'hidden' issues...
 - But beware of 'context effects' and 'observational effects'
- A **supplement** rather than a **substitute** for piloting/ other evaluation methods

Want to know more?

- Contact us!
- Training courses are available through the SRA or NatCen Learning
- Check out the book...



Thank you

If you want further information or would like to contact the author,

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Social Research that works for society