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Cognitive Testing of

Wave 3 *Understanding Society* Questions

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Understanding Society
THE UK HOUSEHOLD LONGITUDINAL STUDY

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

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Abstract

New survey content for Wave 3 of *Understanding Society* includes social networks, non-resident relationships, and a variety of cognitive functioning measures. This report evaluates these items using cognitive testing. A key focus is on respondents who are non-native English speakers. Survey interviewing is routinely done with respondents who have adequate English, though this may belie comprehension and other response problems not ordinarily evident in survey data. Cognitive testing with this population, therefore, facilitated redesign of these survey items to address potential prejudice caused by poor language ability.

Keywords: Cognitive Ability Tests; Social networks; Living-Apart-Together; Non-native English Speakers

JEL classification: C89, D85, J12

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Non-Technical Review

This project was designed to test a number of new items to be included in Wave 3 of Understanding Society concerning new survey questions on social networks and non-resident relationships, and cognitive functioning tasks i.e. items designed to assess various aspects of cognition including different aspects of memory and numerical ability.

The primary objective of the cognitive testing was to test how these items work with different segments of the survey population. As part of this the testing protocols were designed to:

• Examine respondents' understanding of the questions

• Examine the respondents' ability to answer the questions

• Examine issues of sensitivity

• Explore whether respondents understand the instructions for the tasks and therefore know what it is they are supposed to do

• Explore whether respondents feel that they have enough time to answer each of the cognitive function tasks

• Explore, with respondents, what they think the purpose of the cognitive function tasks are and why they were asked to do them.

An overarching aim was to evaluate these survey items in the context of interviewing respondents who are non-native English speakers as compared to native English speakers. A significant amount of survey interviewing is done with respondents who have adequate English though this may belie comprehension and other response problems which may not ordinarily be evident in survey data.

This report provides detailed findings across all survey items examined as well as provides information on the effects of cognitive testing on implementation of survey items in Wave 3 of Understanding Society.

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1 Background and Methodology

1.1 Background and aims of cognitive testing

This project was designed to test a number of new items to be included in Wave 3 of *Understanding Society*; also known as the UK Household Longitudinal Study (UKHLS). The items tested included both:

1) New survey questions on social networks and non-resident relationships; and
2) Cognitive functioning tasks i.e. items designed to assess various aspects of cognition including different aspects of memory and numerical ability.

The primary objective of the cognitive testing was to test how these items work with different segments of the survey population. As part of this the testing protocols were designed to:

- Examine respondents' understanding of the questions
- Examine the respondents' ability to answer the questions
- Examine issues of sensitivity
- Explore whether respondents understand the instructions for the tasks and therefore know what it is they are supposed to do
- Explore whether respondents feel that they have enough time to answer each of the cognitive function tasks
- Explore, with respondents, what they think the purpose of the cognitive function tasks are and why they were asked to do them

An overarching aim was to evaluate the these survey items in the context of interviewing respondents who are non-native English speakers as compared to native English speakers. A significant amount of survey interviewing is done with respondents who have adequate English though this may belie comprehension and other response problems which may not ordinarily be evident in survey data.

1.2 Project Design

This section gives a brief overview of the project design. Full details on the cognitive interviewing methodology and analysis are contained in Appendix A.

Both the new survey questions and the cognitive functioning tasks were tested via cognitive interviewing. An interview protocol was developed which included all the items to be tested with the addition of a cognitive probes. The probes were used to explore how respondents understood key concepts and terms and whether any sensitivities existed within the questions. Interviews were semi-structured in nature, this allowed interviewers to probe on additional issues as and when they arose. Observation and Think Aloud techniques were used to gauge how respondents engaged with the survey task.

A full copy of the interview protocols (i.e. the interview Question and Probe Sheet) is provided in Appendix B.

1.3 Sampling and Recruitment

A purposive sample was designed to ensure that a range of respondents were interviewed. It was felt important to test the new questions on respondents who varied in terms of age, gender and ethnicity. As the *Understanding Society* panel has an Ethnic Minority boost it was felt important to explore whether any specific areas could prove problematic for any group included in the boost sample. Targets were set to ensure that all boost ethnicities (Indian, Pakistani, Bangladeshi, Black African and Black Caribbean) were included in the cognitive testing sample.

In total 43 respondents were recruited using door-step screening techniques. A copy of the door-step screening protocol is included Appendix C. A summary of key respondent characteristics is provided in the tables below.

Table 1.31; Sex by Ethnicity

Ethnic Background		**Male**	**Female**	**Total**
Ethnic Boost Populations	**Indian**	3	5	**8**
	Pakistani	3	3	**6**
	Bangladeshi	1	2	**3**
	Black African	2	1	**3**
	Black Caribbean	3	2	**5**
General Population	**White British**	4	6	**10**
	Other	5	3	**8**
Total		**21**	**22**	**43**

Table 1.32; Sex by Age

Age	**Male**	**Female**	**Total**
18-34	5	9	**14**
35-59	9	10	**19**
60+	7	3	**10**
Total	**21**	**22**	**43**

In addition, quotas were set to ensure the cognitive testing sample varied included respondents who varied in terms of their English proficiency. Whilst there are translated interviews in *Understanding Society* there are many respondents who are interviewed in English who would use another language in their everyday lives or at home. One key aim of testing was to establish whether language ability interfered with item performance. Therefore testing aimed to provide a qualitative indication of whether lower scores in a cognitive functioning task suggested poorer functioning in the domain of interest (e.g. numerical ability) or were actually an artefact related to interference from a different domain (i.e. understanding of English).

Quotas were set to ensure a number of the respondents did not speak English as their primary language at home. Please see Table 1.33 for a breakdown of respondents by Primary Language at Home.

Table 1.33 Primary Language at Home[1]

English	21
Other	22
TOTAL	**43**

Other languages spoken at home were: Bengali, Gujerati, Hindi, Pharsi, Tamil, Nepalese, Albanian, French, Polish, Spanish and Ukrainian.

In addition to recruiting respondents who did not use English as their primary language at home (referred to in this report as Non-native English speakers) steps were taken to monitor levels of English proficiency. Respondents who did not speak English as their primary language were asked to self-rate their English ability using a four-point scale (Very Good, Fairly Good, Below Average or Poor) as part of the initial screening exercise. Upon completing the cognitive interview interviewers were also asked to give their own subjective rating of the respondent's English. A breakdown of English ability in the sample is given below.

Table 1.34 Respondent Rating of English Ability (if English not the Primary Language at Home)

Very Good	1
Fairly Good	14
Below Average	3
Poor	3
Not asked	1
TOTAL	22

Table 1.35 Interviewer Rating of English Ability (if English not the Primary Language at Home)

Very Good	3
Fairly Good	11
Below Average	4
Poor	4
TOTAL	22

[1] Please note respondents who speak both English and another language equally at home have been classified as having English as their primary language.

Respondent and interviewer ratings of language ability largely corresponded. In the body of this report, where ratings did differ, the interviewer rating is referred to rather than the respondent's rating.

Levels of educational attainment were also monitored throughout recruitment. The final sample varied in terms of their educational attainment, with some respondents having received no formal qualifications and others having degree level qualifications or higher.

1.4 Structure of this report

Chapter one, this chapter, provides a brief overview of the aims of the cognitive testing and also describes the characteristics of the 43 respondents who were interviewed. Chapter 2 presents findings from testing the social networking questions and also the non-resident partnership question. Findings from testing all of the cognitive functioning tasks are detailed in chapter 3, and presented in the order in which they were tested. Finally chapter 4 addresses some more general issues, such as how the questions worked overall for non-native English speaking and minority ethnic group respondents. In this final chapter, we address the issue of question and task order and other issues which relate to implementation.

1.5 Recommendations and re-testing

Throughout the rest of this report, and at the end of each set of questions or tasks, we make suggestions for what actions we feel should be taken as a result of the cognitive testing. These recommendations are based on evidence from the cognitive interviews as well as informed by the literature and what we know about survey response behaviour. It is important to note that we would always advise that revisions are re-tested. If time does not allow for further rounds of cognitive interviews we recommend that alterations are at least tested as part of piloting. Respondent de-briefing questions could be included as part of the piloting process, and act as a useful way of facilitating checks, such as whether a respondent included or excluded something when providing their response. De-briefing questions can also provide some evidence to suggest whether questions were easy or difficult, and these might be especially useful for some of the cognitive functioning tasks. It should be noted that, as they are administered in a survey, debriefing questions are best administered as a series of closed questions so there are limits as to what can be explored in this way.

2 Findings on New Survey Questions

2.1 Background questions

There were three questions in this section. The purpose of this section was to provide background information on the respondent, to provide the respondents with a few general questions before the social network questions were tested and to use information collected at A3 to route respondents at Q15.

A1. Which age group are you in? READ OUT…

1. 18-44
2. 35-59
3. 60+

A2. Are you... READ OUT…

1. Single, that is, not currently married or in a legally recognised Civil Partnership,
2. Married and living with husband/wife or in a legally recognised Civil Partnership and living with civil partner,
3. Other

{IF A2=1 OR 3}

A3. May I just check, are you living with someone in this household as a couple?

1. Yes
2. No

Findings for age, marital status and living with someone (A1 to A3)

A1, A2 and A3 were not specifically probed on in the cognitive testing. Nevertheless, interviewers did report on specific problems that arose. A1 worked as intended, universally. On the whole A2 and A3 also worked as intended for all respondents, irrespective of their ethnic/cultural background, gender, age or fluency with English, including even those whose English was rated by either themselves and/or by the interviewer as 'below average' or 'poor'. Additionally, there was no evidence to suggest that the questions were sensitive to respondents. Specific findings, including problems related to A2 and A3, are reported below.

How the response categories were used in the background questions

Generally, civil partnership was understood in A2. On the only occasion when it was not understood, the respondent was still able to understand the rest of the response categories so could still select the appropriate response. This respondent was a native English speaker, aged 19, so it could be the age of the respondent which made this term unfamiliar. When, 'other' was selected by respondents, it was universally used to indicate that the respondent was a widow or a widower.

At A3, there was a respondent who did not answer the question thinking about living in the household *as a couple* but just answered it thinking about whether he or she lives with someone in a household (the respondent's English in this case was rated 'fairly good' by both the respondent and the interviewer). The implication of this misunderstanding could result in data collected over-estimating the number of people living together as a couple, if respondents wrongly include sharing a house with family and/or friends for example.

Recommendations

- As these background questions were included only as part of the test questionnaire, and we assume that other questions within the *Understanding Society* questionnaire will be used to collect background demographics and marital status, we do not have any specific recommendations. What we would be keen to point out, however, is the importance of drafting a question to establish marital/cohabitation status, to facilitate effective routing to Q15 (Non-resident partnership).

Final Decision / Implementation

- The standard *Understanding Society* age, marital status and cohabitation questions were used in Wave 3.

2.2 Social Networks: Friends and close friends (Q1 and Q2)

The aim of Q1 was to identify the size of the respondent's social network, with Q2 looking at the size of the respondent's network of close friends as an indication of strong ties. Testing revealed that the term 'friends' in Q1 was problematic in terms of who should be included or excluded. Q2 worked as intended on the whole. We present the findings of how both these questions worked below.

{Ask All}

Q1. We next have a few questions about your friends. How many friends would you say you have?

1. 0 → Go to Q15
2. 1 → ASK Q3 – Q6
3. 2 or more (ENTER NUMBER) ☐

Q2. And how many of these are close friends? (ENTER NUMBER) ☐

Number of friends respondent has (Q1)

Testing revealed that Q1 was problematic for respondents, irrespective of their demographic profile or level of English. This was demonstrated by respondents asking the interviewer who they should include under 'friends' when answering Q1. Even when

the respondent did not ask for this clarification, testing showed that 'friends' was interpreted in four ways:

1. Only including close friends in the UK, *excluding* relatives who are close friends;
2. Only including close friends in the UK, *including* relatives who are close friends;
3. Thinking about all close friends, including those overseas but not including relatives who are close friends; and,
4. Thinking about, and including, anyone the respondent socialises with in the UK, and this could include work colleagues, close friends and/or relatives.

Irrespective of who was included, a 'friend' was understood generally to be someone with whom one socialises with, somebody with whom you have a close relationship, someone you chat with, have meals with, or your children and their children are friends with, someone who is there for you when you need them or people you are friendly with at work or at college. The implication of this wide interpretation is that the measurement aim of the question is not being fully met, with the result that there could be under-reporting of social networks by certain types of respondents.

In testing, respondents nearly always consciously decided to exclude friends living overseas because they thought the question was only asking about friends living in the UK. This could be a reflection of the sample, as all the respondents with a South Asian background excluded their friends overseas when answering this question, but the only respondent with a Caribbean background we had in the sample did include his friends overseas. We do not have evidence to know if there was a cultural factor here or simply on the whole respondents did not think about friends overseas when answering this question. The implication of this omission is that this aspect of a person's social network is not currently being captured consistently, with the consequence that social networks may appear to be smaller amongst some groups when the data is analysed, for example amongst ethnic minorities.

Testing also showed that respondents could vary in whether to include or exclude relatives who are close friends. Respondents in this sample, with a South Asian background, excluded relatives even if they had a close friendship with them, as they did not see relatives as friends in the context of this question. This exclusion would result in under-reporting of social networks amongst respondents from this subgroup as their networks tend to be strongly kin based. Testing also showed that in some cultures, identifying someone as a friend requires a particularly strong relationship with that person, resulting with smaller numbers of social contacts being reported at this question.

Additionally, testing showed that friends on Facebook were not mentioned by respondents in this sample, because they did not know them well. This answer strategy could be age based as the respondents who took part in the cognitive testing did not well represent younger respondents who will take part in the *Understanding Society* interview. We do not have any evidence for this, but something to bear in mind is that younger age groups (16-23), may adopt a different practice, such as include their friends on Facebook.

Sensitivity and social desirability effects (Q1)

Occasionally this question was found to be sensitive when a respondent realised how few friends he or she had. Nevertheless, the respondent could still answer the question as the respondent understood why he or she was being asked the question. This sensitivity arose because friends were understood as close friends.

This question could also be prone to social desirability effects when a respondent decides to overestimate the number of friends he or she has, to appear more sociable in front of the interviewer. This was revealed in testing. For example, one respondent included all their classmates at college despite the fact they had not had the chance to make friends with all of them. In another case, one respondent said it was 'sad' to say you had only '30' friends, as it would suggest 'you had few friends'. In this case the respondent went on to indicate all the people they knew since school, so reported 150 although this respondent had not spoken to some of these friends for over 10 years. The impact of this strategy is over-reporting of social networks.

Number of close friends respondent has (Q2)

Q2 on the whole worked as intended even if respondents had only thought about close friends at Q1. Q2 was considered a better question by respondents, because friends were defined.

"Now that's a better question"

(85 year old Female with a Ukrainian background)

'Close friends' was understood as someone you could trust, share problems with or is there to provide support when needed; more than someone you just socialise with or spend time with. This understanding was retained irrespective of cultural background and fluency of English. As with Q1, there was inconsistency in how this question worked, as respondents either included close friends who were also relatives or excluded their relatives who were close friends. Also, respondents, who thought they should only think of friends in the UK at Q1, retained this understanding at Q2. Both omissions could result in under-recording of close friends. This could lead to the survey data collect under-estimating the size of social networks in certain groups of respondents, such as ethnic minorities.

Recommendations

- It is our understanding that the aim of these questions is to tap into the size of the respondent's social network however we are unclear as to what this concept encompasses. Is social network, in this context, is about anyone the person is in contact with, regardless of whether or not all of the people who make up this network are friends; the question needs to specify this if so. The risk of this extremely broad definition is that respondents will report lots of people, hundreds even, and people the respondent acknowledges when passing on the street could be counted here. If social network is about the people you could call on or if frequency of contact is the crux

here, this would exclude people who live abroad or those one might not speak to as often as others, but would still be considered important in the person's network.

- It would be helpful to have some guidance on the **defining features** of a social network.
    - Is this solely about people you know and/or are in contact with, but this might be out of convenience (such as sharing lifts to work), and not out of choice (people you know through work or members of your family) and acquaintances (parents of your child's friends who you maintain relationships with but would not necessarily choose to spend time with)?
    - Or, is social network being used in this context to ultimately tap into friendship ties, however broad.
- Currently the word 'friend' has been used to elicit this information, by first asking about number of friends the respondent has (in a general sense) and then whittling it down to number of *close* friends. Whilst there were respondents in our sample who answered Q1 in a broad sense, including work colleagues, friends abroad and relatives, there were also those whose definition was much narrower, notably respondents from South Asian groups who discount kin members (when we know that these can be a very important component of social networks for people in these groups). This could also be an issue for other groups too as we are only able to report on occasions where this arose for the groups who were represented in this small sample.
- If the aim of Q2 is distinguish close friends from others in the respondent's social network (Q1), the word 'friend' will probably work ok, however the use of 'friend' in Q1, which is about social networks in a broader sense (friendship, kinship, common interest, financial exchange, sexual relationships, dislike or relationships of beliefs, knowledge or prestige), is potentially problematic. For reasons described above.
- Although we know what we mean by 'social network', we would highly recommend that this concept is <u>not</u> used in the context of a survey question. It could confuse respondents and risk the collection of obscure and inaccurate data and/or high levels of item non-response. Instead, and assuming the focus is on people within a social network who would be considered a friend and/or acquaintance, we feel the word friend can be used but should be accompanied by a number of examples to encourage respondents to think about this in a broader sense.

'We next have a few questions about your friends. How many friends would you say you have? Please include all of the people you spend time with or keep in contact with, including friends from work and groups or clubs you are involved in, friends overseas and those you may not see so often as well as relatives who are friends'.

- Consider retaining Q2 with a slight modification.

Q2. And how many of these would you say are close friends? (ENTER NUMBER).

- If ISER wish to focus Q2, we would suggest that a similar question to that used on the citizenship survey (Sfriends, 2007-2008) is asked, but modified so that it allows for an open response:

Some people have close friends. These are people they feel at ease with, can talk to about private matters, or call on for help. How many of the people you have just told me about would you say are close friends?

Final Decision / Implementation

- The first question on the total number of friends was dropped from the question series.
- A set of questions from the Citizenship Survey was adopted to obtain information on the proportion of 'friends' held of different types, including whether friends are family members. As with the Citizenship Survey, the term "friends" was not defined.
- This set of questions was followed by Q2, which was amended to be "How many close friends would you say you have?".

2.3 Introduction to questions about the three closest friends

{If Q2=2 or more}
INTRO: "Now thinking of up to three of your closest friends, we would like to ask you some questions about each of them in term. Don't worry about the order which you tell us about them – we won't assume that the first friend you tell us about is your best friend".

The introduction sets the scene that the respondent will be asked questions of up to three of their closest friends. It also informs the respondent that the order does not matter, and that there is no assumption that the first friend is the best friend.

Findings

The first aim of the introduction, to inform the respondent that he/she was going to be asked questions on three of his/her closest friends, on the whole worked as intended irrespective of the respondents' cultural or language background. In one case, a respondent understood 'closest friends' to literally mean friends who live nearest to him/her. This respondent was a native English speaker.

Testing revealed that the second aim of the introduction, to inform the respondent that the order does not matter, was not achieved. In this testing, generally, respondents were not thinking about the order, with the result that this sentence in the introduction was considered supercilious or even confusing irrespective of fluency in English. However, this sentence was considered helpful on the rare occasion that the respondent was thinking about the order. Testing also revealed that on one occasion, a respondent whose English was rated 'poor' by the interviewer did find the introduction confusing, and thought the interviewer was asking to speak to their three friends. When the interviewer explained the introduction, the respondent was clear and comfortable to proceed. Any confusion that respondents had with the introduction was clarified by the following questions, which clearly took the respondent through each friend.

Recommendations

- Consider rewording the introduction slightly by removing the reference to 'your best friend' in the last line:

- ‘Now thinking of up to three of your close friends, we would like to ask you some questions about each of them in turn. Don’t worry about the order which you tell us about them.
- Consider adding a respondent de-briefing question when these questions are first piloted, to check whether there was a certain order that respondents reported their friends in (i.e. best friend first) or whether it was random (i.e. first to come into their head).

Final Decision / Implementation

- The set of questions were retained for Wave 3. The pre-amble was amended, however, to read “Here are a few questions about your friends. Thinking of up to three of your closest friends, we would like to ask some questions about each of them in turn. None of the things we would like to know would allow us to identify your friend. Don't worry about the order which you tell us about them”

2.4 Name of each friend (Q3, Q7 and Q11)

The findings for the rest of the social network questions will be presented question by question, by combining the findings of how this question worked when asked of each friend.

The number of times this question was asked was dependent on the number of friends the respondent identified at Q2. If the respondent had identified that they had two or more friends the question was repeated at Q7, when the second friend was asked about, and again at Q11, if the respondent had identified they had three or more friends at Q2.

Q3. Now thinking about your first friend, what is this friend’s first name?

INTERVIEWER: IF RESPONDENT QUERIES WHY THEY ARE BEING ASKED TO GIVE THE NAME OF THEIR FRIEND, EXPLAIN THAT WE ONLY NEED IT TO IDENTIFY THE FRIEND IN THE NEXT FEW QUESTIONS ABOUT THEM.
ENTER FORENAME_____

{IF Q2= 2 or more}
Q7. Now thinking about your *second* friend, what is this friend’s first name?

ENTER FORENAME_____
{IF Q2= 3 or more}
Q11. Now thinking about your third friend, what is this friend’s first name? [this is just so that we can identify them as we’re asking questions about them]

ENTER FORENAME_____

Findings

The aim of this question was to identify the name of the particular friend, so the following questions could be appropriately worded to refer to the correct friend. Testing showed that respondents could understand the question but there were concerns about sensitivity

in regards to providing a friend's name without the person's consent. Respondents also questioned why this level of detail was necessary. We discuss these findings below.

Sensitivity

This question was not sensitive for the White or Black British respondents in this sample. The issue about sensitivity was put at ease because the question only asked for first name of the friend and not the surname. The only evidence we have to understand why respondents in this group were not sensitive to this question is that respondents understood and recalled the confidentiality explanation provided by the interviewer prior to the start of the interview.

Due to the characteristics of members of the sample on which these questions were tested, we cannot fully explore the nuances of cultural and age difference about the sensitivity of this question. Nevertheless, findings do suggest that the question was sensitive for certain South Asian age groups. Female respondents with a South Asian background, in the 18-59 age group, were on the whole sensitive to this question, irrespective of their level of English. This was shown by either the respondent:

- Saying so and or the interviewer providing reassurance about confidentiality again;
- deciding to use initials only of his or her friend or calling the friend, friend 1, friend 2 etc rather than provide the friend's first name;
- Thinking about their close friends with common names only so the friends could not be identified; or,
- Providing the friends' names despite their concern.

The concern of respondents in this group was to give the name of their friends in a survey without their friend's permission and also questioning why this level of detail was needed. On one occasion, a respondent did go on to provide the name of her friend(s) despite her concerns and said she did so because she felt she could explain to her friend(s) that the survey was confidential. Male respondents in this age group were fine with the question. We do not have evidence to inform why there was a gender difference in sensitivity. There was variation amongst the older respondents with a South Asian origin in their sensitivity of the question. Testing showed that a respondent could be so comfortable with the question they would provide the title and surname of the friend whilst others found the question so sensitive they decided not to provide the name and refer to the friend by a number so the first friend was called 'one' and the second friend 'two' etc.

Examination of how this question worked amongst other groups of respondents, found this question was also sensitive for respondents from other ethnic backgrounds because he or she felt they needed permission from their friend to provide this information. Testing also found that respondents could be slightly embarrassed to name their friend, if the friend was present at the interview, especially when the friend is a family member.

Respondents retained their sensitivity of this question, at Q7 and Q11. If respondents had adopted a strategy so as to not provide the name at Q3, they retained the same strategy at Q7 and Q11. One exception to this was when a new strategy was adopted when this question was asked again at Q7. Testing revealed that on one occasion a respondent

provided the same name at Q1 and then at Q7. We do not have evidence to know if the second friend actually does have the same name as the first friend or if the respondent was sensitive to this question and decided to use one name for all friends.

Also testing showed that there could be a context effect on this question. On an occasion, a respondent recalled, hearing in the introduction to the cognitive interview, that the respondent would not be identified by name in the report. This added surprise when at this question the respondent was asked for the name of his/her friend. However, the respondent believed that there must be reason for the question and thought it was fine to provide the first name. Although, not an issue in cognitive testing, it does indicate the importance of the introduction in explaining the study and confidentiality. Despite this sensitivity the respondents did provide an answer and it was possible to identify the friend in the following questions.

Recommendation

- Consider retaining the question but attach an interviewer instruction, so the survey interviewer has a note to be able to ease any concerns that the respondent may have with providing the name of his/her friend, consider.

  INTERVIEWER NOTE: If the respondent queries why they are being asked for the name or you suspect they may have concerns please inform the respondent that...

  Q3 is only used to identify the correct friend to refer to in subsequent questions which are about your friendship generally, and the person **will not be contacted**. Ask for initials if the respondent would prefer not to say name. Reaffirm confidentiality.

Final Decision / Implementation

- *Understanding Society* will not obtain the name of the friend.
- The friendship questions will be asked via CASI, and respondents will be questioned about a “first” friend, then a “second” friend and a “third” friend in order to keep track of which person they are describing.

2.5 Recollection of how the respondent met the friend for the first time (Q4, Q8 and Q12)

The aim of this question was to understand the context in which the first encounter between the respondent and each of the respondent’s closest friends occurred. This question was repeated up to three times.

SHOWCARD A
Q4/Q8/Q12.

How did you meet each other for the first time?

1. He/she is a relative
2. Through my family
3. At work

4.	In the neighbourhood
5.	At school
6.	At an organisation or club
7.	Through common friends
8.	Through my religious community
9.	At a pub/club
10.	Through the Internet
11.	Other (please specify)

Findings

On the whole this question worked as intended. Occasionally, the cognitive interview was challenging for respondents whose English was limited, as rated by the interviewer but nevertheless it seems that the respondent was able to answer the question in what appears to be the correct way.

Respondents generally understood 'met your friend' as to physically see each other; or the first time the respondent had spoken to the friend. Testing explored how this question was understood and explored the use of the response categories. We report on both separately below.

First time respondent saw the friend and the first time respondent met the friend 'as a friend'

Universally respondents could clearly remember how they met their first, second and third friend when they answered the questions. Testing revealed that respondents thought about two situations when answering this question.

1. Respondents thought about the first time they ever saw or met the friend; and
2. The first time they met the friend 'as a friend'.

Testing found that respondents made a judgement about whether to answer the question thinking about the first or second situation. Respondents pointed out the first time they met their friend or saw their friend in school or in university, they were not friends. They became friends later. Respondents on the whole (correctly) thought the question was asking them about situation one, the initial point of contact. Respondents could easily remember this occasion. Occasionally, respondents answered this question thinking about both situations, so when they first saw or met the friend before they had become friends and when they first met as friends. The implication of respondents identifying both situations could result in over-reporting if there were different situations in how the respondent met the friend initially and when they first met as friends. We assume that this question intends to get at the channel through which the two people first came into contact and we suggest below how this might be better achieved. Respondents retained the same answer strategy when they answered Q4, Q8 and Q12.

Interviewers probed around respondents' interpretations of the different response categories and on the whole, there were consistent understandings of the differences between them. Below we report on problems identified in testing.

Overlapping categories

Testing revealed that response category 1 and 2 could overlap. This was shown in testing when a respondent indicated that her sister is her friend so is a relative but also met through the family. One respondent (a native English speaker) reported this overlap.

Understanding of neighbourhood, religious community, common friends and through the internet

Respondents understood neighbourhood in the context of how they met their friend. So this could vary from next door neighbour, the whole street, to five mile radius or a small town or village. Further respondents thought about the neighbourhood when they met the friend, so this could be a different neighbourhood now for the respondent if the respondent has moved away from the area. In testing there was one occasion when neighbourhood was not understood but the respondent was able to explain how he or she met his/her friend and correctly selected 'other' (this was used to indicate that the respondent met his/her friend in Germany), so this lack of understanding of the term did not impact on how the question worked, in this case.

In this round of testing none of the respondents selected 'through my religious community' to indicate this was how they met any of their friends. During the cognitive interviews respondents were probed on their understanding of this response category. It was understood in three ways:

1. People who attend the same place of worship as the respondent; or,
2. People who engage in the same type of religious activities that the respondent participates in such as prayer meetings, Sunday School; or,
3. More broadly to refer to people 'around' the respondent who share the same belief/religion as the respondent or to include everyone who share the same belief irrespective of geographical boundaries, or anyone who believes in God.

The first two options are distinguished although very similar because they did not overlap when respondents explained their understanding of this term. Further, the first understanding was the more common understanding. There does not seem to be a clear religious, ethno-cultural or fluency in English which can explain why respondents had one of the three types of understanding. The measurement aims of this response category need clarifying: is it about a physical place of worship (i.e. a church/mosque/synagogue) or is it broader than this – so would include a collective involvement in the same religion, which could be narrow (as shown in the second understanding above) or broad (as shown in the third). Depending on the measurement aims, this response category could be re-worded to help this response code work as intended.

Response category 7, 'through common friends', was not consistently understood. When it was not understood, the term common was what confused respondents, because common was understood in a derogatory way to indicate a common person or a crude person or simply not understood in the context of the answer option. If this response category is intending to capture meeting a friend through a friend, the word 'common' could be removed.

Response category 10, 'through the internet', was understood by respondents. In this testing no one selected this option and therefore we do not have evidence to know if there was a social desirability effect here with respondents not wanting to say that they met friends through the internet. Testing did show that respondents understood this response category and mentioned social networking websites such as face book, MSN messenger, twitter, Bebo and also dating sites.

Missing Options or details

'Other' was used in testing to capture detail not collected at the listed response categories, for example to indicate that the respondent met her/his friend on holiday, at the doctor's surgery, or at university or college. Respondents indicated that holiday and university were missing response categories from the showcard and we would suspect that it will be common to meet friends whilst travelling (abroad) and when at university or college. On an occasion a respondent selected response category 5 (At school) and added the caveat actually at university, to indicate that that he or she had met their friend at university. The implication of this answer strategy is that this could result in under or over-reporting at this response category.

Recommendations

- Consider retaining the question with slight modifications to the question.
  How did you meet each other for the very first time?
- Consider slightly amending the following response categories:
  Response category 5 to 'At school, college or university'
  Response category 7 to 'Through friends'; and
  Response category 8, assuming it is meant to capture place of worship, to 'Through my religious community e.g. your place of worship'.

Final Decision / Implementation

- This question will be asked via CASI with the following wording: "How did you meet this first/second/third friend for the first time? Please select the one answer that best describes how you met."
- The response options were amended. "School" was split out into two categories, "School" and "College or University" separately. "Common friends" was amended to "Through friends". "Through my religious community" was left unchanged. "At an organisation or club" was changed to "Through an organisation or activity". The code "While travelling or on holiday" was also added.

2.6 Frequency of meeting each friend (Q5, Q9 and Q13)

The aim of this question was to measure frequency of contact respondents have with their close friends.

Q5/Q9/Q13. How often do you see or get in touch with your friend either by visiting, writing or by telephone? Would you say…READ OUT

1. Most days
2. At least once a week
3. At least once a month, or
4. Less often?

Findings

On the whole this question worked as intended. Respondents understood that they should include different types of communication when answering this question, so thought about the frequency of actually meeting the friend, as well as texting, emailing, Facebook contact and phoning their friend(s) as appropriate. When respondents thought about meeting friends, this included just meeting up, going out socially, meeting at the community centre as well meeting at work. Occasionally a respondent either thought about only physically seeing the friend when they answered the question or interpreted the question as two questions, so answered about often they see the friend and then how often they get in touch with the friend. The respondent who exhibited the former answer strategy was rated by the interviewer has having fairly good English. Below we report on the key problems identified with the question in testing.

Omissions in the question and answer options

Respondents did point out omissions in the question which would help clarify the measurement aims. There was one respondent who suggested that the question was missing the internet in the list of examples. In this case the respondent did not think about the internet when they answered the question. Other respondents pointed out that there should be another response category i.e. between most days and at least once a week. Respondents had a clear idea of frequency of contact such as twice a week or three times a week but they had to edit their response to fit the appropriate answer category, so ended up selecting either response option one or two both of which were felt unsatisfactory. Testing also found that respondents who saw their friend daily, for example their spouse or their child, felt that the response category daily was missing at this question. In the absence of this option response category one was selected.

Varying frequency of contact

Testing found that this question was difficult for respondents to answer if they had varying patterns of frequency of contact with their friends. The difficulty was shown by the respondent changing their answer a number of times and then deciding on the average amount of contact. The implication of this is that in a survey context a respondent may

take a short cut to answer this question, such as select the last option read out, known as recency effect just to progress through the interview, rather than to provide an accurate answer. A suggestion provided by a respondent who had this difficulty in the cognitive interview was an introduction to saying 'Thinking about an average week how often do you see ....' should be provided. When there was a regular pattern on contact the question was easy to answer.

Work Friends

Testing revealed that respondents could include time at work when they met friends who they work with or could decide to exclude this time when answering this question. If respondents included work time it was because they understood that they should include all occasions that they meet their friends including work situations. Respondents, who excluded work time when deciding on their answer, did so because they understood they were being asked about how often they see or get in touch with friends in a social context.

Social desirability effects and level of closeness

Testing indicated that when it came to the second and or third friends this question could be prone to social desirability effects, as respondents wanted to indicate that they had more contact with their friends then they really did to show they were making an effort to keep in touch with friends. On one occasion, it also raised in a respondent's mind whether he/she was really as close to their friend as they thought.

Recommendations

Consider slightly amending the question and answer options.

- Q5/Q9/Q13. Thinking about a usual week, how often do you see or get in touch with your friend either by visiting, writing, or by telephone and other modes of contact such as communicating through the internet?
- Consider providing a clarification to the respondent to let them know if they should or should not include time at work, if they have a friend at work, depending on the measurement aims. For example, if the question aim is to only include social time, consider adding, 'Please do not include time at work…. Would you say…. READ OUT.
- Consider altering the response categories so that they allow for daily contact to be reported, and more differentiation in types of weekly contact:
  1. Every day or almost every day
  2. Two or three times a week
  3. Four to six times a week
  4. Once a week
  5. Once a fortnight / every two weeks
  6. Once a month, or
  7. Less often?

Final Decision / Implementation

- The question wording was updated to be more expansive and include any form of contact "How often do you usually see or get in touch with this first/second/third friend either by visiting, writing, telephoning or any other mode of contact?"

- A decision was taken to retain the original shorter set of responses and to not distinguish response options in-between those already present.

2.7 If respondent has ever met their friend that they met through the internet (Q5b, Q9b and Q13b)

{ASK IF Q4=9 first met "through the Internet"}
Q5b. You said that you met your friend through the Internet for the first time, have you ever met each other outside of the Internet?

1. Yes
2. No

This question was not the focus of testing, as it happens no one was asked this question in testing.

Recommendations

- We do not have any specific recommendations.

2.8 Does this friend share your tastes in any of the following (Q6, Q10 and Q14)

The aim of this question was to measure similarity between close friends.

SHOWCARD B
Q6. Does this friend share your tastes in any of the following?

CODE ALL THAT APPLY

1. Music
2. TV
3. Clothes
4. Films
5. Books or magazines
6. Sports
7. Politics
8. Religion
9. Other hobbies or interests

Findings

Testing found that this question was easy to understand and to answer for respondents who were native English speakers or had fairly good English. The question was understood as having the same feelings towards a particular interest. There were no options which were considered inappropriate. Nor was the question found to be sensitive. However, testing did reveal that this question was not universally understood by respondents who struggled more with English. Below we report on the difficulties found in testing.

Understanding of the expression 'Share your tastes'

The findings indicate that this question was difficult to understand for respondents who had limited knowledge of English especially, but also for other groups of non Native English speakers. The difficulty arose because respondents did not understand the expression 'share your tastes'. This was indicated by the question being re-read by the interviewer a number of times before the respondent could answer the question or the respondent talking about their confusion.

On one occasion a respondent's initial thoughts on hearing this phrase was to think the question was going to ask about food, but on seeing the showcard the respondent realised that they were being asked for different interests. On one other occasion a respondent was so confused that they could not answer the question. This was because the respondent understood share and taste literally, so share meant to divide and taste meant to eat. This respondent rated their English as poor and this was reaffirmed by the interviewer rating. It was suggested by respondents who found this question difficult that the question could be simplified by replacing 'taste' with 'interests'.

Generally, respondents were able to understand what the question was asking them, but it was difficult because of the translation of the expression 'share your tastes'. Respondents correct understanding of the question were affirmed by referring to the showcard and the showcard also helped respondents to realise that they should think of a range of interests.

Answer strategies

If the question was answered, then four answer strategies were observed during testing. Respondents either:

1. Included all their interests even if the respondent did not have similar taste such as followed football but did not share the same team or both liked films but did share the same taste in films;
2. Decided not to include interests which were not completely shared so if the respondent did not like all the same television programmes this interest was not indicated;
3. Only indicated religion as the shared interest even though he/she shared other interests; or they,
4. Answered 'No' that the respondent did not have shared interests when he or she did.

The implication of respondents adopting the different answer strategies is that that it affects the measurement aims of the question being achieved. Native English speakers universally adopted the first answer strategy. Other types of respondents in this testing, adopted any of the four answer strategies listed above. The implication is that if the latter answer strategies (2, 3 or 4) are adopted by non Native English speakers there will be under-reporting of commonalities between friends by this group, which will have implication on the analysis. In testing the third answer strategy was only observed once. The respondent understood the question and had fairly good knowledge of English as rated by the interviewer but the respondent decided to code religion only even though he/she also shared an interest of sports with the friend. The only evidence we have for

this answer strategy is that the respondent *did not want to* include any other options apart from religion. This practice would result in under-reporting of other interests. We do not have evidence to know if the third strategy could be more prone amongst respondents of a certain type e.g. very religious or followers of a certain religion, but we suspect that this could be an issue. The fourth answer strategy was only observed once in this testing but it does reveal the implication of the question being understood literally. The respondent shared an interest of cultures with his/her friend but answered no because he/she "speak about different cultures".

Occasionally the question was considered sensitive because the respondent felt that they were talking behind the friend's back and the interviewer need to reassure confidentiality. Also testing found that this question could be hard to answer when the respondent had not thought about what they have in common with the friend. Testing also revealed that on rare occasions, past shared interests as well as current interests can be captured at this question.

Missing Option and the use of 'other hobbies or interests'

Respondents thought that holidays or travel, were missing options, but universally, this was successfully captured in the response category 'Other hobbies or interests'. Beliefs was also viewed as different to religion but again captured in 'Other hobbies or interests' rather than in religion. Respondents indicated that the question should ask about food and drink, culture, language, shared values and going out.

Response category 6 (Sports) was not used as intended with respondents selecting 'Other hobbies and interests' to indicate they shared golf, football or cricket with friends as well as walking or jogging. We do not have evidence to know why respondents did not select sports for these interests.

Recommendations

- Consider rewording the question to 'Does this friend share your interests in any of the following'?
- Consider adding 'Cultural activities or language', as a new response category before religion
- Consider whether there is an interest is collecting shared interests in food and drink. If there is, add 'Food and drink' as a new response category (after religion), otherwise this should be reported under 'Other'.
- Consider adding the examples walking or golf to response category 6 (Sports).

Final Decision / Implementation

- This question was not carried in Wave 3. Instead, two questions were substituted "Which of the things listed below do you talk to this first/second/third friend about?" and "Which of these activities listed below do you do with this first/second/third friend?"

- The response options for the first substituted question include “1 Music, 2 Sport, 3 Work, 4 Politics, 5 Religion, 6 Family or children, 7 Books, 8 Magazines, 9 Films, 10 TV, 11 Relationships, 12 Food & Drink, 13 Travel, 97 Other hobbies or interests”
- The response options for the second substituted question include “1 Watch sport, 2 What other TV, 3 Go to films, concerts or other events, 4 Just talk, 5 Web chat, 6 go to pubs, cafes or clubs, 7 Go shopping, 8 Do sport or other type of exercise together, including walking, 9 Eat together, 10 Travel or take holidays together, 97 Do other hobbies or activities together”
- These questions will be asked using CASI.

2.9 Living Apart Together (Non resident relationships)

Steady Relationship

This section included only one question for testing, which was tested for comprehension and for sensitivity issues. This question was well understood on the whole by respondents and universally respondents were able to answer the question. Universally, respondents thought about a serious exclusive relationship. Partner was universally understood as husband or wife, or boyfriend or girlfriend. Respondents correctly thought about partners living elsewhere such as overseas including in the Forces, as well as partners that they do not live with locally.

Sensitivity

This question was only sensitive for female respondents with a South Asian background and this was identified by respondents saying that they could not have a boyfriend because their family would not approve. To address this sensitivity, it was suggested that this question should not be asked in the presence of other members of the family or should be asked as part of a self completion questionnaire because respondents would be worried about answering truthfully. We do not have evidence to know if this question was sensitive for non married South Asian males. It was also pointed out that this question could be sensitive to ask of older respondents of any background who are now widowed. However, in this testing the older respondents did not find this question sensitive. The implication of respondents finding this question sensitive is that this could result in item non response, or respondents making the judgement to provide the ‘culturally expected answer’ especially if this question is asked in front of people they do not want to offend such as an elder or deciding not to participate in the rest of the questionnaire. This will obviously have an impact on the measurement aims of the question and on the survey, if respondents decide not to participate in the rest of the questionnaire.

Recommendation

- Consider retaining the question as worded.
- To address issues of sensitivity that could arise when this question is administered consider asking this question as part of a CASI. If this is possible consider asking this question on a showcard where the respondent just reads out a letter associated with the answer they wish to give. However, this does assume that the respondent’s literacy is sufficient to read the question. As there are instruments already translated

in a number of South Asian languages, it would be advisable to translate this question so respondents have the option to read the question in his or her native language as well as in English. To reassure respondents about answering this question consider adding a reminder that all responses are confidential, such as at the bottom at the showcard or on the front page of the self completion questionnaire.

Final Decision / Implementation

- This question was retained but with the following wording “Do you have a steady relationship with someone you are not living with here, whom you think of as your ‘partner’? (Please include your spouse or partner if you are not currently living with them)”. The parenthetical is included for those who are currently married or in a civil partnership but the partner is not currently resident in the household.
- This question is asked using CASI and will be translated into the 9 official languages of *Understanding Society* other than English.

3 Findings on Cognitive Functioning Tasks

3.1 Perceptions of Memory

There were a number of questions, which have previously been asked on the Health and Retirement Survey (HRS)[2], to assess memory. The plan for *Understanding Society* is to ask these questions of all survey respondents aged 16+ so all respondents in the sample received questions 16, 17 and 18. The aims of the cognitive interviewing were to explore interpretations of 'memory', assess whether the time intervals are appropriate and gain evidence around whether respondents are able to judge their memory now comparing it back to one/two years ago. As this was the first in the series, a short introduction was read out to respondents to introduce the cognitive functioning tasks.

INTRO TO COGNITIVE TASKS: READ OUT "Part of this study is concerned with people's memory and the ability to think about things. In the next section of the interview, we will do some memory and concentration tasks".

{ASK ALL}
Q16
First, how would you rate your memory at the present time? Would you say it is excellent, very good, good, fair or poor?
1. EXCELLENT
2. VERY GOOD
3. GOOD
4. FAIR
5. POOR
6. DON'T KNOW/ REFUSAL

{ASK ALL}
Q17
Compared to last year would you say your memory is now better, about the same, or worse now than it was then?
1. BETTER
2. ABOUT THE SAME
3. WORSE
4. DON'T KNOW/ REFUSAL

{ASK ALL}
Q18
Compared to two years ago would you say your memory is now better, about the same, or worse now than it was then?
1. BETTER

[2] The **Health and Retirement Study** (HRS) is conducted by the Institute for Social Research (ISR) at the University of Michigan in Ann Arbor and is supported by the National Institute on Aging (NIA). The study interviews 22,000 Americans 50 and over every two years on subjects like health care, housing, assets' pensions, employment and disability

2. ABOUT THE SAME
3. WORSE
4. DON'T KNOW/ REFUSAL

Findings for self reported memory function at the present time (Q16)

In general the task of rating one's memory at the present time did not appear to cause any problems for respondents and bar one respondent (Male, 50 years of age and White British, who wanted to give different answers to rate his short and long term memory so did not provide a response), all were able to answer it. Additionally there was no evidence to suggest that this question caused specific problems for the non-native English speakers within the sample, even those whose English was rated by the interviewer as 'below average' or 'poor'.

Occasionally, during cognitive probing into interpretations of the range of response categories, respondents changed their answer – showing a perceived improvement in their present memory or down playing it, however in general respondents tended to rate their memory by using one or a combination of the following answering strategies:

- comparing their memory now to how it has been, or was, in the past;
- considering their memory in the context of their employment;
- comparing their own memory to the memories of others (and sometimes those whom are of the same age); and,
- rating their memory on that particular day, taking into account current circumstances such as lack of sleep, an argument with a partner or being pregnant.

Interestingly the older respondents (age 60+) within the sample who rated their present memory as excellent, very good or good tended to justify their response by stating that they were able to remember the detail of events, which for some occurred a long time ago.

Differentiation of the response categories

Interviewers probed around respondents' interpretations of the different response categories and on the whole, there were consistent understandings of the differences between them. It should be noted here that there were respondents in the sample who viewed an 'Excellent' and a 'Very good' memory as the same thing and also respondents who failed to see the difference between 'good' and 'fair'. Incidentally, 'good' was seen to be the middle category and was used by respondents who felt that their memory was about average. Interestingly, it was extremely rare for a respondent to rate their memory as 'excellent'. There were respondents who said that few people have excellent memories and that they did not know anyone with an excellent memory.

- **Excellent** - knowing all of the details about something; remembering word for word what someone had said, hearing and catching everything; a memory that never fails, a 'photographic' or a 'computer-like' memory; scientists, academics, brain boxes; someone who is able to read the Koran and refer to pages and chapters within it; someone like Stephen Fry!

- **Very good -** someone who got the gist of something but wouldn't necessarily remember the precise details; someone who might have to think twice to remember; still be better than average; never forgetting things.
- **Good -** the average; someone who is able to remember what you have to remember.
- **Fair –** "*Borderline*"; "*sketchy*" on detail of remembering something; forgetting about half of things; forgetting things like appointments; Absent minded; "*A nice way of saying your memory is not very good*!"
- **Poor** – forgetting quickly; struggling to remember; omitting the details; not being able to remember the fine points of conversation; forgetting everything; forgetting to put the kettle on, why you have gone upstairs or what you went to the shops for; someone with a poor short term memory; much worse than average.

We know that there are always going to be differences in the way respondents interpret response categories, especially for self assessments, and therefore we feel that the differences in classification, and therefore use of, the response categories do not pose serious problems for this question. One problem that we do feel is worth noting, however, and one which was certainly found amongst these interviews, is resistance to rate one's own memory as 'excellent' because of the stigma which is attached to this claim. This response category could therefore be removed from the scale, as we suspect very small proportions of respondents will choose it, or otherwise it could be merged with 'very good' during analysis. This would also remove 'good' as being seen as the middle category.

Recommendation

- As this question caused few problems for respondents and on the whole it was found to be straightforward to understand, we would recommend retaining the question with the current wording
- As there was differentiation found in the use of the response categories, and specifically there was resilience to choose 'excellent', we would recommend that the first category is either dropped, altering this question from a five to a four point scale, or merged during analysis with 'very good'.

Final Decision / Implementation

- The question was retained as it was tested and since it was derived from a different survey (the US Health and Retirement Survey), the response options were retained for comparability.
- The pre-amble was changed, slightly. "Part of this study is concerned with people's memory and the ability to think about things in everyday life. In the next section of the interview, we will do some memory and concentration tasks. Some may seem easier than others. Please just do the best you can on all of them."

Findings for self reported memory function compared to last year (Q17) and 2 years ago (Q18)

There is a question over the measurement aims of these questions, and the required level of accuracy which is intended, however we are not convinced that respondents are always

able to answer them and even if they are, they may not necessarily answer the two questions in a considered manner. Interestingly, during the cognitive interviews, the odd respondent questioned the aim of these questions: "*Do people have good memories? Would it be related to how different age groups consider their memories?"* (Male, 35-59, British born Syrian). It was unusual for a respondent to completely misinterpret this question but it did happen – for example one Black African Female, in her 20s, thought she was being asked how well she remembers a year/two years ago.

Below we discuss two of the main problems that were aired through probing during the cognitive interviews, difficulty with the task and evidence of satisficing, but before we do so it is important to present evidence which suggests that both questions can work relatively well.

There were respondents who were able to compare their memory to both last year (Q17) and two years ago (Q18) without any difficulty and the detail obtained through probing suggested that their thinking was sensible and their answers were justified. There were respondents who explained that they just knew that their memory had either deteriorated or remained the same, however there were respondents who used internal strategies to formulate a judgement, including:

- The use of specific landmarks, such as someone's birthday, when thinking back to assess what their memory was like then (i.e. one/two years ago);
- The use of specific measures of memory, such as ability to remember why you went upstairs or do a cross word, to assess how their memory compares now to the past;
- Thinking about their circumstances, such as studying or being out of work, a year/two years ago and the impact of these on the use of and performance of their memories;
- Thinking about ways in which their memory fails them now (such as forgetting things) which they knew did not happen a year or two years ago; or,
- (On the flip side) thinking about ways in which their memory failed them in the past, i.e. one/two years ago, but is better now/has improved since then.

Difficulty with the task

There were respondents who found it difficult to answer either one or both of these questions. Reasons given for the difficulty experienced included:

- the fact that there is no scientific measure to help you decide;
- if you were in a different situation then (you were studying) to what you are in now (you are now working) and the way you use your memory is different;
- if your circumstances had not changed between then (i.e. one/two years ago) and now – one respondent, for example, hadn't changed his bank PIN or phone number or anything else he specifically had to remember during this time;
- it was difficult to think back to two years ago, although reasonable to think back to last year, and as a result respondents who experienced this either guessed or provided the same response for Q18 (two years ago) as they did for Q17 (a year ago).

Survey satisficing

According to Jon Krosnick[3], in his proposed theory of statistical survey satisficing, respondents will not always engage in the cognitive work to provide an optimal response but may instead take shortcuts and offer responses that will seem reasonable to the interviewer, without any memory search or information integration. Linked to respondent ability, motivation and task difficulty, survey satisficing can manifest in, amongst other things, choosing explicitly offered no-opinion response categories, middle categories or don't know (if offered). It could be argued that the response category at Q17 and Q18 'about the same' could be the easy way out for respondents who are more likely to engage in satisficing. In fact, evidence to suggest that this was the case was found in the cognitive interviews. There were respondents who were guessing and chose 'about the same', or chose this category because they didn't know or did not feel able to say (sometimes because they found the task too difficult).

The implication of respondent satisficing in this context is that care should be taken in interpreting the 'about the same' response category. This category includes an unknown amount of don't know. It may be that respondents are rationalising that don't know means 'about the same' because if it was better or worse, they would know. This raises a question mark about what this category is measuring. As respondents are not aware of the 'don't know' category, they feel forced to choose a category regardless of whether it reflects their 'true' response. The risk, however, of offering a 'don't know' category is that it provides a get out clause.

Recommendations

- ISER wish to ask either Q17 or Q18 and we did find that two years ago can be difficult to think about, and generates guesses or mirrored responses to the question about a year ago, however there were respondents in the sample who said their memory was about the same as it was last year but is definitely worse now to what it was like 2 years ago – their memory has almost levelled out and remained consistent in the last year. Within the context of a cross sectional survey, the interest might be capturing changes in memory and therefore keeping the two questions together might be advisable, however in a longitudinal survey like *Understanding Society*, we would recommend that Q17 with the last year reference period is asked alone, and that changes in perceptions in memory are measured over time using this one item.
- One respondent pointed out the overuse of the word 'now' in Q18, however as we are recommended that this question is dropped and Q17 is retained, this does not impact on question wording.
- As we found no evidence to suggest that questions 16, 17 or 18 were any more difficult for non-native English speakers, we would recommend that the questions (i.e. Q16 and Q17) are at least piloted on respondents who would be interviewed in English on *Understanding Society*, but who might not speak it as their first language.

Final Decision / Implementation

[3] Krosnick, J. (1991). "Response strategies for coping with the cognitive demands of attitude measures in surveys." Applied Cognitive Psychology. Vol 5, 213-36.

- The questions comparing respondents' memory to one or two years ago, Q17 and Q18 were not carried into Wave 3.

3.2 Prospective Memory Task (Cliptask A and B)

Task Description

One cognitive functioning task tested was a Prospective Memory task.[4] The aim of this task was to assess whether respondent could retain instructions to perform a simple task, and perform the task correctly after a delay.

For the prospective memory tasks respondents were shown a clipboard and told at a later point in the interviewer the clipboard would be handed to them; respondents were instructed that when this happened they should write their initials on top left hand corner. Respondents then completed a number of other cognitive functioning tasks (i.e. the Serial 7s task, the Number Series Task, the FAS task, the Immediate Word Recall task, the Orientation to Time task and the Numerical Ability Items) before being handed the clipboard. Interviewers were instructed to code whether or not the respondent retained the full instruction.

Task wording as tested

Details of how the Prospective Memory task was described to respondents, and additional instructions for interviewers on how to administer this task, are given below.

CLIPTASKA:
READ OUT: Now I would like you to remember to do a task in order to assess everyday memory. At some point during the interview I will hand you this clipboard and a pencil
{*INTERVIEWER: Show respondent the clipboard}*

READ OUT: When I do I would like you to write your Initials on the top left hand corner of the piece of paper attached to the clipboard. Is that clear? *{If no repeat above}*

CLIPTASKB:
{Hand respondent clipboard}
READ OUT: These are for you
{Pause for exactly 5 seconds. IF NO RESPONSE USE prompt below}
You were going to do something when I gave you the clipboard and pencil. Can you remember what it was?

{IF respondent says 'Am I supposed to....?' prompt:}
Do whatever you think you are supposed to.

INTERVIEWER: CODE WHETHER OR NOT YOU PROMPTED RESPONDENT.

[4] Prospective memory is memory related to future plans and intentions, as opposed to retrograde memory which is memory of past events.

1. Prompt given
2. No prompt given

INTERVIEWER: RECOVER CLIPBOARD FROM RESPONDENT AND RECORD WHETHER TASK COMPLETED SUCCESSFULLY

1. Wrote initials in top left-hand corner
2. Wrote initials somewhere else on paper
3. Wrote something else in top left-hand corner
4. Did something else

Aims of Cognitive Testing

The aims of the cognitive testing were to:

- establish whether any problems in task communication occur with Non-native English speakers. For example it was thought important to test whether all respondents understood the term 'initials'; and
- establish whether respondents generally have a consistent understanding of the task and that problems that do occur are related to memory rather than ambiguity within the task instructions

The key findings from this element of the cognitive testing are reported in the following section.

Task Performance

Respondents varied in their ability to perform the Prospective Memory task. At time one, respondents asked for the initial information to be repeated. This behaviour occurred in both respondents for whom English was their primary language and for Non-native English respondents. Likewise respondents asked for clarification when handed the clipboard; again this behaviour occurred in both respondents for whom English was their primary language and for Non-native English respondents.

There did appear to a pattern between task performance and primary language, see table 3.21 below.

Table 3.21 Number of respondents exhibiting specified behaviours at Prospective Memory Task by primary language.

Primary language	English	Other[5]
Interviewer Codes 1-3 *i.e. respondent wrote something when presented with clipboard*	20	10
Interviewer Code 4 *i.e. respondents did not write anything on clipboard even with prompting*	1	11
Total	**21**	**21**

As the sample used in cognitive testing is small and purposively designed it is not appropriate to take these figures as being statistically significant or to use them to draw any estimates about task performance across the general population. The purpose of this table is to illustrate that, at a cursory level, there appeared to be some connection between primary language and task performance, with Non-native English speakers being less able to complete the task given, even with prompting.

The four respondents whose English was rated as 'Poor' by interviewers did not write anything when the clipboard was presented. These respondents expressed confusion over the task and it was felt by interviewers that the respondents did not understand what they were being asked to do. A major element of this confusion was that respondents with 'Poor' or 'Below Average' English did not always understand the term 'initials.' This issue is discussed more in the next section.

However, it should be noted that not all cases of poor performance in Non-native English speakers were due to comprehension issues. A number of these respondents stated they did not perform the specified task as they had 'forgotten the instruction,' rather than the fact they did not understand what they needed to do:

"I know what my initials are… I forget… My concentration went."
(Female, Aged 35-49, Spanish, English=Below Average)

In such cases it appears the item was measuring a valid construct i.e. the ability to remember to perform tasks. However, it was not always easy for interviewers to establish what the root cause of performance issues were and whether or not non-performance was related to memory or task comprehension.

[5] It should be noted that one 'Other' primary language respondent did not complete the prospective memory task as the interview was terminated before the second part of this task was administered.

Understanding of 'Initials'

As noted above a number of Non-native English speakers did not understand the term 'initials.' For example, one respondent (Male, Aged 18-34, Bangladeshi, English=Poor) had only heard the term in relation to a work stock-take. To him the term initials meant a mark that identified something that belonged to his company, rather than something related to his own name. Other Non-native English speakers had differing understandings of the term; some had not heard the term at all whilst others thought it was the same thing as marking their name or giving a signature.

This misunderstanding of the term initials is problematic as it could lead to a bias in the survey data collected. Respondents from certain backgrounds, who are more likely to be Non-native English speakers, could appear on aggregate to have poorer prospective memory than the general population. In fact this would be an artefact due to measurement error brought about by comprehension issues rather than the construct of interest (Prospective Memory).

The term 'initials' was also problematic for respondents who spoke English as their Primary language albeit in different ways. One respondent (Female, Aged 18-34, Pakistani) misheard the instruction to say 'initial' as opposed to 'initials' so only wrote the first letter of her name at this task. The interviewer concerned was unsure how to code this behaviour. Other respondents expressed concern about why their initials were required. Part of this concern was due to their believing giving initials was similar to providing a signature, and they did not feel comfortable doing this in case the information was misused. It is unclear whether this concern would occur in existing panel members, as they will already have had multiple encounters with the interviewer and they will have received more information confirming the legitimacy of the study.

Therefore, the cognitive testing revealed several reasons why the prospective memory task should avoid the use of respondents having to give their initials. Alternatives to this approach are discussed in the subsequent section on key issues and recommendations.

Administration Issues

There was an issue with the placement of the second part the Prospective Memory task. In the test questionnaire the second part of the Prospective Memory task (CLIPTASKB) came after the Number Series Task. During the Number Series task respondents were provided with a sheet of paper on which to write down a series of numbers. One respondent (Female, Aged 60+, Ukrainian, English=Very Good) put her initials on paper provided for the Number Series Task and then became confused when the clipboard was presented- in her mind she had already completed the initial writing task and therefore required prompting to do the task again. Therefore, to avoid this misinterpretation happening in the survey context, we recommend that the second part of the prospective memory task should come before any paper is introduced.

Finally it was noted post-testing that there was a longer gap between the Cliptask A and Cliptask B with certain groups of respondents, i.e. older respondents. Respondents aged 60+ had to answer additional questions (i.e. the time orientation task) before being asked to complete the Prospective Memory task. This could lead to a bias in the results collected as respondents over 60 may be less able recall the instructions than younger respondents not because of diminished capacity but because they have to complete an additional task in between time one and time two. Therefore the positioning of the time orientation task needs to be reconsidered.

Key Issues and Recommendations

The Prospective Memory task did not work well in its current format with Non-native English speakers. Part of the problem involved respondents with 'Poor' English not understanding the word 'initials'. Furthermore, in the cognitive testing context, there was some wariness about providing initials in case the information could be misused.

For these reasons we recommend that the use of initial writing is dropped from the task and replaced with writing something else. As there were concerns about using identifiers we recommend not using date of birth, giving a signature or proving similar information. Suggestions for alternatives include:

- 'Write your name'
- 'Draw a cross'
- 'Draw a circle'

Which of the above would be most appropriate is open to discussion. The important element would be to choose a task that is easy for respondents to understand whatever their level of English.

In addition we recommend the order of the tasks is changed so that the second part of the Prospective Memory task comes before the Number Series Task, or any other task where paper is provided. Likewise, the placement of the Orientation to Time task needs to be reconsidered so it does not occur between the different elements of the prospective memory task

Final Decision / Implementation

- Given the difficulty in administering this task, when considering its utility in cognitive ability testing, this task was not included in Wave 3.

3.3 Serial 7 Task

One of the cognitive functioning tasks, which was included and tested in cognitive interviews with respondents, was the Serial 7 task. This task is used in the Health and Retirement Survey and is an assessment of working memory, both in the sense of short-term integration, processing, disposal and retrieval of information. This task also relates to other complex cogntive tasks such as reading and problem solving. The aims of the cogntive interviews were to assess whether:

- respondents are able to understand what they are being asked to do in the set of questions within this task
- respondents understand the term ‘subtraction’ and ‘minus’
- respondents understand that the words ‘from that’, used as subtraction prompts, imply that they are required to subtract 7 from the number that they just arrived at from the previous subtraction.
- The task causes any distress or performance anxiety.

The task is shown below and for reference purposes answers to the questions are provided in blue.

{ASK ALL}
SERIAL 7 TASK:
Q19 (a)
Now let’s try some subtraction of numbers. One hundred minus 7 equals what? 93
{INTERVIEWER: If R adds 7 instead you may repeat question. Remember to explore this when probing}
(b) And 7 from that? 86
(c) And 7 from that? 79
(d) And 7 from that? 72
(e) And 7 from that? 65

INTERVIEWER: CODE WHETHER OR NOT RESPONDENT USED PENCIL AND PAPER/ ANY OTHER AIDS WHEN COMPLETING THE NUMBER SUBTRACTION.
1. R definitely used aid
2. Suspect R used aid but not certain
3. No reason to think R used aid
4. Refusal/ Don’t know

Comprehension of the task

The correct responses to this task are a) 93, b) 86, c) 79, d) 72 and e) 65 and if these were given, this is by far one of the best ways to validate whether the task was understood. Even if the the respondent was only able to answer correctly at (a), and their remaining answers were not always correct, however they seemed to follow the correct pattern (i.e. intervals which were moving further away from 100), this is a still a good indication of whether the respondent understood what was required of them and probably indicates genuine mathematical errors.

There was evidence found in this sample of both the former (all correct) and the latter (first correct, and sometimes the second and even third correct – or if not correct, out by one or two numbers). Additionally, there were respondents whose English was rated as ‘poor’ who got all parts of the task correct.

The cognitive interviews suggest that the inital instruction, where the word ‘minus’ is used alone, generally works well and evidence of this is supported by the fact that almost

universally respondents tended to get the first part (a) correct. It was rare for a respondent to fully misinterpret what they were initially required to do although it did happen. The following two cases, both whom had poor English rated by the interviewer, were unable to grasp what was reuqired of them, even when the instrcutions were repeated to them on several occaions:

- A Bangladeshi female in the 35-59 age group, who mainly speaks Bengali, did not understand the meaning of 'subtract' nor 'minus', and therefore the task as a whole. She used paper and tried to work it out but failed and the interviewer explored why she had written down a plus sign (+), to which she explained that this is what 'minus' means in Bengali.
- A 79 year old Indian Female, who had never learnt to read or write in English but could speak it fairly well, became completely confused and the interviewer had to stop. Interestingly, however, this lady did get the first part (a) correct. The confusion she faced could, therefore, have possibly been caused by the introduction of the words 'and 7 from that', which we discuss below, but it is not clear from the data.

Subtraction and Minus

As respondents in the sample were exposed to both of these words, even if a respondent understood the meaning of one, but not the other, they were able to get the gist of what was required of them through the instruction upfront. We are unable to say which word was better understood, from the two, as this varied so much (although there were comments that the word 'minus' would be better for non-native English speakers), but one consistent finding was that respondents used the words 'take-away' when describing either 'subtraction' and/or 'minus'. There were no differences found between ethnic minority respondents, white British respondents or respondents for whom English was not their first, or main, language. The words 'take-away' were collectively familiar.

'And 7 from that'

As noted above, the first part of the serial 7 task was unproblematic and tended to be understood. It was only when respondents came to be asked part (b) and when they first heard the words 'and 7 from that' did problems occur. Generally, there were three kinds of respondents in the sample, excluding those who were unable to even start the task;

1. those who reported no confusion with the task, made no reference to the words 'and 7 from that' and said the task instructions were clear and could not be made any clearer;
2. those who were able to fully understand the task and proceeded through it without raising any issues but afterwards, during probing, indicated that it would be clearer for others if it referred to the words 'minus' or even 'take away' throughout, instead of relying on 'and 7 from that' (including white British respondents);
3. those who were completely thrown by the words 'and 7 from that', which resulted in causing a range of problems, which are described in more detail below.

On hearing the words 'and 7 from that', respondents who can be classified as type 3 above, either hesitated, questionned what they were supposed to do next and/or became

completely confused. These words were more problematic for the ethnic minority respondents but did not only cause problems for those with 'below average' or 'poor' English. There were respondents who were rated by the Interviewer as having 'very good' English for whom these words still caused major problems.

As a result of problems caused by these words, there were respondents who made the error of adding on numbers to those they had previously given from this point onwards. This instruction even made respondents question whether they were being asked to take 7 away from 100 again, having already done so when they reported 93 at (a). When interviewers got to (b), where they first read out 'and 7 from that', this is where respondents would ask 'what do you mean?' and explain that they did not understand. One respondent, inbetween (a) and (b) said "*pardon*?" and the interviewer repeated 'and 7 from that', to which the respondent replied with "*And 7 from what…I know it's minus 7, I subtract the 7, so what is 7 from that?*" (Female,68, Ugandan, with fairly good English). An Indian man, aged 60, with 'fairly good' English became confused at this point, having answered correctly at (a), and started adding 7, so he added 7 to 93 and so on. The following quotes indicate similar confusion:

*"7 from? I can not understand. I can not understand the question. 7 from? What is 7 from?" (*Male, 45-59, Tamil speaker from Sri Lanka, English rated as fairly good).

"what do you mean, 7 from that?"
(Male, Indian, 60, English rated as fairly good)

There were occasions where the interviewer repeated, on several occasions, the words 'and 7 from that' which helped respondents understand what they had to do, however there were also cases where interviewers gave up trying at the time and instead had to explain this instruction after the task, during probing. Interestingly, respondents tended to understand the word minus, and sometimes even subtraction too when the words 'and 7 from that' were explained to them, and had these been used instead were confident that they would have proceeded through the task without difficulty.

The use of aids and other interviewer related points

Interviewers were asked to record whether the respondent used an aid and there were respondents in the sample who requested paper, used their own paper, or used their fingers as a counting aid. Currently, the interviewer instruction does not mention the use of fingers as an aid however if this should be included, the instruction needs to be made clearer and mention this. Feedback from the cognitive interviewers, some of whom also work as survey interviewers on *Understanding Society*, suggests that bar the omission of using fingers as a counting aid, the interviewer code works well and covers the range of different situations.

Unrelated to the use of aids and recording the use of aids, collectively the cognitive interviewers strongly felt that the subtraction prompt 'and 7 from that' was not only the

main cause of problems that respondents experienced, but that it also felt strange to read out and did not flow so well.

Sensitivity, frustration, distress

There were no signs of distress, and respondents seemed happy enough to complete this task, including those who found it especially difficult. Respondents occasionally laughed or commented that they were not very good at maths and evidence was found to suggest that the task could make people feel under (time) pressure and that there were feelings that they had to answer quickly as though it was being timed, when it actually wasn't. There were respondents who indicated concerns about providing incorrect responses as well, however interviewers were confident that (for this task anyway) they would be able to alliviate such worries in a survey interview.

Recommendations

- Based solely on findings from this sample of cogntive interviews, we would recommend the following alterations to the Serial 7 Task:

SERIAL 7 TASK:
Now let's try some subtraction of numbers. One hundred minus 7 equals what?

(b) And take 7 away from that?
(c) And take 7 away from that?
(d) And take 7 away from that?
(e) And take 7 away from that?

INTERVIEWER: CODE WHETHER OR NOT RESPONDENT USED PENCIL AND PAPER/ ANY OTHER AIDS (SUCH AS THEIR FINGERS) WHEN COMPLETING THE NUMBER SUBTRACTION.

1. R definitely used aid
2. Suspect R used aid but not certain
3. No reason to think R used aid
4. Refusal/ Don't know

- As there was no evidence which specifically points to possible problems non-native English speakers might have with this task, our recommendation is to ask it of this group. The inherent problem with this question was the words 'and 7 from that' and if these are replaced with a reference to 'take-away', a phrase which was mentioned by almost all respondents, we feel that problems this task currently has should be solved.

Final Decision / Implementation

- All recommendations were adopted. The questions were amended to as recommended and the additions to the follow-up interviewer observation were incorporated.

3.4 Number Series Task

The next cognitive functioning task tested was the number series task. This task involved respondents being read a series of 4-5 numbers with one number being deliberately omitted. Respondents were asked to fill in the missing number. The aim of the Number Series task is to measure Fluid Intelligence. Fluid intelligence is the ability to use abstract thought to solve novel problems[6] and it is typically assessed via logic puzzles.

The items chosen for use in the Number Series task were taken from the Health and Retirement Survey. A short set of items can be used to estimate the score a person would receive on a longer test[7]. The particular items are not shown but are similar to the ones included in this report. The items were chosen to be difficult. Respondents were encouraged to use a pencil and paper to help them complete this task. There was no time limit in which the task had to be completed. However, interviewers were instructed to ask respondents who took more than a minute to complete an item if they wanted to move on to the next question.

Questions tested

The introduction and questions of the number series task are detailed in the box overleaf. For reference purposes answers to the questions are provided in blue. Interviewers were asked to code whether respondents gave the correct answer, an incorrect answer, a don't know or a refusal.

Q20 INTRO
Next I'm going to read you a series of several numbers and I'd like you to write them down. There will be a blank number in the series that I read to you. For each number series problem I would like you to tell me what number goes in the blank.

For example, if I said the numbers "1 2 BLANK 4," then you would simply reply with "3".

Some of the problems may be easy but others may be hard. Just do the best you can. There is no credit for answering quickly - it is more important to answer the item correctly, but it is okay if you do not know the answer because some of the items are intended to be very difficult. You can go on to the next item at any time. Are you ready to begin?

Q20a
Please write down the following numbers: 4 . . . BLANK . . . 9 . . . 14
Now look at the numbers that you just wrote down and tell me the number that belongs in the blank.
Answer=5

[6] Cattell, R.B. (1963). Theory of fluid and crystallized intelligence: A critical experiment. *Journal of Educational Psychology,* **54**, 1-22

[7] McArdle, J.J. & Woodcock, R.W. (2010). A block adaptive test (BAT) approach to cognitive testing. Unpublished manuscript. Department of Psychology, University of Southern California, Lost Angeles, CA, USA.

Q20b
Next, please write down the following numbers: 20 . . . 12 . . . 8. . . BLANK . . . 5
(Now look at the numbers that you just wrote down and tell me the number that belongs in the blank.)
Answer=6
Q20c
Next, please write down the following numbers: 17 . . . BLANK . . . 12 . . . 8
(Now look at the numbers that you just wrote down and tell me the number that belongs in the blank.)
Answer=15

Aims of Cognitive Testing

The aims of cognitive testing were to assess:

- Whether respondents understand what they are being asked to do;
- Whether issues related to language or culture interfere with task performance;
- Whether respondents find the task distressing, particularly whilst being observed by the interviewer.

The latter issue was felt to be of particular concern as it is imperative for the survey that respondents continue to consent to be interviewed in subsequent waves. Therefore we do not wish to introduce items that respondents react negatively to in case this leads to an increased level of attrition in subsequent waves.

Each of the above will be looked at in turn over the following sections.

Understanding instructions

Respondents varied in terms of how well they understood the task presented. A number of barriers were associated with understanding the task, namely:

1) The length of the introduction
2) The phrasing of the introduction
3) The example used.

Respondents, both those who spoke English as their primary language and non-native English speakers, asked for the introduction to be repeated. This made the question lengthier to administer. It was noted by respondents that the introduction was quite long-winded which made it more difficult to retain the information within it. Non-native English speakers whose English was rated as 'Poor' by interviewers sometimes needed the question to be repeated multiple times.

Issues related to the phrasing of the introduction also created confusion that were not necessarily related to the construct under investigation (i.e. fluid intelligence). Firstly, respondents did not have a consistent understanding what was meant when they were asked to write in 'blanks.' This problem occurred both in respondents for whom English was their primary language and Non-Native English speakers. Such respondents did not immediately understand they were to write in blank spaces between numbers when the task was read out. Interviewers were able to assist in this element of the task where

necessary but again this resulted in the question taking longer than anticipated to administer.

Having written out the number series there were occasions when respondents waited for further instructions on how to treat the blanks. This behaviour was manifested by both respondents for whom English was the primary language and non-native English speakers:

"…so blank means when there is no number. Does blanks mean minus or empty?"
(Female, Aged 34-59, Bangladeshi, English=Poor)

Such respondents asked for further clarification which again added to length of administration. Furthermore this demonstrates that care needs to be taken when briefing interviewers about the level of aid assistance they can provide respondents when administering cognitive functioning tasks. Inconsistent assistance by interviewers could lead to a bias in the data collected (whereby some respondents receive more help then others depending on their interviewer area). However, not providing clarification about the nature of the task where needed may exacerbate respondent frustration (see next section).

Finally, a number of views were voiced about the example used. Respondents either thought:

- The example was useful and aided understanding of the task; or
- The example was unhelpful and hindered understanding of the task.

Respondents who took the latter view varied in terms of their characteristics i.e. they included respondents who varied in terms of performance at this task, gender, age and whether or not English was their primary language. Respondents who took the view that the example was unhelpful did so because they felt it was too simple:

" That was straightforward where the others were not."
(Female, Aged 35-59, White British)

Respondents felt the example did not demonstrate the task was about logic or problem solving. One respondent (Male, 18-34, Other Ethnicity, English=Very good) became frustrated as he could not relate the task to the example; it did not serve as a useful illustration of the type of problem solving required.

In addition, it is possible the example was not only unhelpful, but actually interfered with the understanding of the task.

"…It's slightly misleading."
(Female, Aged 18-34, Black African)

A number of respondents misunderstood the nature of the task and instead thought the questions required inserting sequential numbers into the blank space. For example:

Q20a 4 . . . BLANK . . . 9 . . . 14

Survey answer given by respondent: 5, 6, 7, 8 (i.e. all numbers between 4 and 9).

This pattern of answering occurred in both respondents whose primary language was English and Non-Native English speakers. Therefore, the error was not made entirely due to English being a second language in all cases, although it is unclear whether or not language was an exacerbating factor. It should be noted that Non-native English speakers, who made this mistake, also varied in terms of their language ability, with some being rated by their interviewer as being 'Very Good' or 'Fairly Good' at English whilst others were rated as being 'Below Average' in their English speaking ability.

Overall Task Performance

As is to be expected respondents varied in their ability to complete the Number Series Task. Out of 43 interviews, nine respondents got all three Number Series items correct. Of these nine there was no discernable characteristic that linked them i.e. they varied in terms of their age, gender and primary language (English or Other). Of twelve respondents who got all the items incorrect, four were Non-native English speakers. These respondents varied in terms of their language ability; two were rated by their interviewer as having 'Fairly Good' English and two were rated as having 'Below Average' English.

Being rated as 'Poor' at English was not an insurmountable barrier to completing this task as some items were successfully worked out by respondents who fell within this category. However, in these cases the respondents tended to require the question to be repeated before they understood it fully. Where Non-native English speakers did voice difficulties with the question they tended to feel their performance was due to their ability to 'spot the pattern' or 'do the maths' rather than the fact they could not understand the question. This was true regardless of their English proficiency.

This is not to say that cultural influences will not have an impact when completing this task. The one noticeable trend across respondents who answered all items correctly was that they were familiar with this type of exercise either through school, further education or completing number puzzles recreationally or as a hobby. Therefore, respondents from backgrounds who have had higher exposure to this sort of task are likely to perform better.

Task Frustration

Of all the cognitive functioning tasks tested the Number Series test was the one which resulted in the most visible respondent frustration. A number of respondents displayed dissatisfaction as they could not find the pattern within the numbers. Likewise, a number of respondents repeatedly opted for the 'don't know' option after not being able to complete the first item. Admittedly, the test is constructed to progress in difficulty across items.

Frustration with the task occurred in both respondents for whom English was their primary language and Non-Native English speakers. However, there was one case were an interviewer did not complete administering the Number Series task as she felt it would be cruel to do so. This case occurred were a respondent (Female, Aged 35-59, Pakistani, English rated as 'Fairly good') became visibly distressed at not being able to do the task. The respondent understood the task in that she knew she knew she had to look for a pattern in the numbers but was embarrassed when she could not arrive at an answer. This respondent had received a lack of formal education. Other respondents expressed embarrassment at this task for similar reasons.

In addition, despite the introduction, respondents voiced a feeling of time pressure and that they should be able to spot the answer 'immediately'. It is possible this feeling could have been intensified by the example used; as the example was simple it was felt other answers should be equally forthcoming.

Interestingly, it appeared these items caused more upset than the Numerical Ability items. Again this could be due to the fact respondents felt the task should be 'easy' due to the example given ('for example, if I said the numbers "1, 2 BLANK, 4" then you would simply reply with "3"). Furthermore, the Numerical Ability items started off with 'easier' items then became progressively harder, whereas the Number Series Items were thought to start off at a difficult level. This could be partially responsible for the high levels of Don't Knows in 20b and 20c as respondents were initially put off by the first item and did not invest effort in the following items. Should this trend repeat itself it would lend to high level of item non-response for some of these items.

Other findings on administration

As has already been noted these questions took some time to administer due to interviewers having to:

- Re-read instructions; and/or,
- Clarify how task should be set up (by demonstrating to respondents how to use blanks etc)

Furthermore it was noted that one elderly respondent could not write due to tremors. In this case the interviewer had to interject and write on his behalf as he could not do the task in his head. Again this added time to administration and would cause problems for survey respondents with writing problems.

To get around these issues it is worth considering changing the mode of question administration so that these items are formatted in advance and presented in a paper self completion format (however with the option of the interviewer assisting those unable to write). This should not interfere with the measurement aims (i.e. the questions will still be capturing fluid intelligence and ability to solve logic sequences) but a level of difficulty associated with the task will be removed i.e. having to retain a long aural presentation, having to write the questions down etc.

Key Issues and Recommendations

The key issues related to this task were that:

- Respondents generally found the task challenging; this was again apparent in both English and Non-native English speakers. Respondents often answered with 'Don't Know' which could lead to high item non-response in the survey context, though the measure includes procedures for dealing with "Don't Know" responses.
- The task took a long time to administer in current format. This was exacerbated by respondents (both those who speak English as their primary language and Non-native English speakers) asking for the introduction and questions to be repeated and asking for clarifications on how to write down the task.
- There was some confusion over the nature of the task (both those who speak English as their primary language and Non-native English speakers) whereby some respondents thought the task entailed inserting a string of sequential answers in the blank space, rather than a single number. This could partially be the fault of the example used.
- Respondents displayed frustration at the task. One element of this frustration was that the example was straightforward so respondents felt they should be able to spot the pattern in the numbers. Some respondents became visibly distressed at this task.

We are aware that for comparison issues it may not be possible to make changes to this task. Nonetheless, we have compiled the following recommendations should some flexibility in question administration be possible:

- Add an additional item that is easier for respondents to complete. This would make the task more like the numerical ability task where items start easy and get more difficult.
- Replace the current example with a slightly more challenging one to indicate we are looking for logical progressions rather than sequential numbers. For instance, the example used could be:
  2…4…6… BLANK…10 (survey answer 8).
- Change the mode of the task so it is administrated entirely on paper, with the instructions, number sequences and blank spaces (i.e. __) already written down. Providing the task on paper could be advantageous as:
    - It overcomes the difficulties of the respondent needing the question to be repeated. This is turn could reduce length of time it takes to administer the questions and relieve associated time pressures.
    - It overcomes the difficulties associated with not understanding the term 'blank' and issues related to writing down the question.
    - A self-completion format may remove issues related to embarrassment and sensitivity i.e. interviewers can't see if respondents get the answers wrong or opt for a 'don't know' item.

Finally, whether or not the above recommendations are adopted, the testing indicated that interviewers need to be carefully briefed in the level of help they can provide and what they should do if respondents exhibit any signs of distress.

Final Decision / Implementation

- The number series test used in Wave 3 of *Understanding Society* comes from the Health and Retirement Survey in the US. The protocol used there has two example problems, the second is the above recommended example (e.g., 2 – 4 – 6 – BLANK – 10). In these instructions, respondents are given ample opportunity to ask questions and for the interviewer to determine whether the respondent understands the task.
- Respondents are told to have pencil and paper ready in order to do the next task which may help with the interpretation of the word "blank" and provide some clue to respondents as to what to do with this test.
- The final protocol is graduated. All respondents get three items of moderate difficulty. Then, depending on the number of correct answers, they get either three harder items or three easier items.

3.5 FAS Test

The FAS test is a test of phonemic fluency. Here, the respondent generates and checks against the category, monitors for duplicates etc. The task is said to assess some aspects of executive function which is important in novel situations and overriding more automatic responses. The aims, for this task, of the cognitive interviewing were to explore whether respondents understand what they are being asked to do and whether non-native English speakers have anymore difficulty with the task because of language and/or cultural barriers. To ensure that all variations of the letters were used, across the entire sample, each interviewer was asked to alternate the letters for each interview. So, for example, if they used the letter 'F' in their first interview, they would use the letter 'A' in their second, and so on.

FAS TASK:

Q21

Next, I am going to say a letter of the alphabet, and I want you to say as quickly as you can all of the words that you can think of that begin with that letter. For instance, if I say 'B', you might give me 'bad, battle, bed' and so forth. You may say any word at all except proper names of people or places, like 'Barbara' or 'Boston'. Also, do not use the same words again with a different ending, such as 'bake' and 'baking'. Often people think of a few words and then draw a blank. If this happens, just keep trying. You will have only one minute to do this, so please do not use your time to make other comments to me. Keep trying to think of words until the minute is up. Is this clear? *[IF 'NO' OR OTHER QUERY, PLEASE ONLY RE-READ FROM THE TEXT PROVIDED. OTHERWISE, CONTINUE]*

Now, think of words that begin with the letter **F as in Frank.** Start now.
Now, think of words that begin with the letter **A as in Adam**. Start now.
Now, think of words that begin with the letter **S as in Sarah.** Start now.

INTERVIEWER INSTRUCTIONS

- *Begin timing when the respondent says the first correct word*
- *Encourage respondent to keep trying for the entire minute. If respondent says 'I can't think of any more' offer supportive but brief advice such as 'just keep trying' or 'you can do it' or 'keep going'.*

- *Write down the actual words in the order in which they are produced in the space below.*
- *Make plus-signs '+' for correct answers or minus-signs '--' for incorrect answers if the responses are too rapid to be recorded verbatim.*
- *If repetitions occur that may be accepted if an alternate meaning was intended by the respondent (e.g., 'four' and 'for', 'son' and 'sun'), then ask what was meant by this word at the end of the 1-minute period*
- *Stop writing when 1-minute period has ended.*
- *Tally the number of correct / incorrect responses*

ENTER NUMBER OF CORRECT RESPONSES

ENTER NUMBER OF INCORRECT RESPONSES

Overall impressions of the task

This task directly followed the number series task, discussed above in section 3.4, and there were respondents who appeared to be relieved to receive it, claiming it was easier and better than the previous one and a nice change from numbers! There were both respondents who enjoyed the task and found it fun and interesting and respondents who did not enjoy the task and commented that it felt pressured. There was another group of respondents (consisting of White British, those from minority ethnic groups and non-native English speakers) who, although found recalling the words difficult, had no complaints about the task and occasionally laughed afterwards about how badly they felt they had done. Comments indicated that some advance warning that this test was coming would have been helpful.

There were mixed feelings about the introduction and instructions and views on these can broadly be classified into two perspectives:

1. the instructions were clear, concise and although detailed and fairly long, were necessary;
2. the instructions were too long, wordy, confusing and could easily be condensed into a shorter form, pulling out the key points:
    - one letter from the alphabet
    - list as many words beginning with that letter
    - not allowed to use names of people or places
    - 1 minute to do so.

Comprehension of the task

Cognitive interviews highlighted that it was not only non-native English speaking respondents who had problems with parts of the instructions. There were white British respondents, within the sample, who asked for clarification after hearing the instructions for the first time:

"so it's as many words as I can think of beginning with the letter you give me in one minute?"

(White British Female, 24 years old).

"*so you don't want proper names of people and places, but otherwise it doesn't just have to be nouns, it can be adjectives, verbs and every sort of thing, can't it?*
(White British Female, aged 54).

It is worth pointing out here that we also had respondents who needed no further clarification and understood the task on hearing the instructions for the first time. For example one 80 year old Pakistani man, with 'good' English, was asked by the interviewer if all was clear and said "*you are going to give me a letter from the alphabet and you want me to say as many words as I can in one minute".* There were respondents in the sample (including those whose English was rated as 'poor' by the interviewer) who seemed to have no problems understanding the task and got high numbers (i.e. more than 14) of correct words.

Table 3.51 below summaries problems experienced by the non-native English speaking respondents within the sample. The final column in the table indicates the rated level of English interviewers gave respondents who experienced such problems.

Table 3.51: Summary of main problems experienced by non-native English speakers

Problem	Manifestation	Level of English
Confusion over the rules about proper nouns	Interruptions during the introduction to clarify what was required and/or allowed	o Poor o Fairly good
Misinterpreting the task to be about providing one word for the first letter given, and then another word for a second letter given, and so on	Requests for clarification	o Quite good
Missing the one minute reference	Starting to name words and then stopping and not realising they could continue	o Very good o Fairly good
Providing words that began with letters different to the one they had been given	Listing 'umbrella', 'egg' and 'omelette' amongst other words beginning with the letter 'A'.	o Poor o Fairly good

Proper nouns

There was evidence found to suggest that the instruction to exclude proper nouns was not always taken on board and/or understood. Respondents would clarify what they could include and even then would still provide proper nouns when asked to list the words, although this was not necessarily a result of confusion.

The proper noun confusion was not exclusive to non-native English speaking respondents – one 30 year old Indian female, for example, whose first language is English but speaks Gujarati at home, said that without the examples of proper names of people or places ('Barbara' and 'Boston'), she would not have understood what this meant. Other respondents commented that both these examples (i.e. of proper nouns) and the

examples to demonstrate use of the same words with a different ending ('bake' and 'baking') were helpful.

As well as general confusion over the instruction to exclude names of people and places, there were respondents who either provided mostly proper nouns or said that they found it difficult to think of anything but names of people and places. Incidentally those who automatically thought of proper nouns could either provide them or correctly exclude them. Interestingly those who provided mostly proper nouns were rated as having 'below average' or 'poor' English by the interviewer. It is difficult to say why this occurred among this group however evidence from the data point to two possible reasons:

1. the possibility that the word 'except' was missed during the introduction; and/or,
2. the fact that someone with English as a second language may not have access to as many words in their vocabulary and will be more likely to be familiar with names of places and/or people: *"I feel you are too limited, you said no places, no name, I felt really limited. I mean this is my second language so you really are limited. It was really difficult"* (Male, Farsi speaker, age 18-34, rated as having 'fairly good' English).

To support the second reason for difficulty experienced by this group, comments from non-native English speakers suggest that the task would have been easier had they been allowed to give names of people and places.

Examples used to kick start the task

A very important finding was that both interviewers and respondents pointed out that it was both confusing and off-putting to give names of people (F as in Frank; A as in Adam; and S as in Sarah), having just told the respondent that they should exclude names of people and places. There was also the odd comment that the letter 'F' could be mistaken for an 'S' by people for whom English is not their first language, suggesting that 'F' is possibly not the best choice of letters.

Coding of correct and incorrect responses

Interviewers seemed to be able to adequately follow the instructions and judge whether or not a word should be counted as correct/incorrect, for example interviewers discounted words such as 'French', 'September', 'February' and 'Frank'. There were however occasions where words were provided by respondents which made the interviewers question whether they should be counted as correct, such as 'Frosties' (the cereal brand) and 'Fromage-Frais' – should this be one word or two? These instances point to the importance of very thorough interviewer instructions before the task is implemented onto the survey.

Recommendations

- If proper nouns are to be discounted, we would strongly advise that new examples are used when respondents are given their letter. Currently proper nouns are used and this contradicts the instructions.
- Consider shortening the introduction, focussing the respondent on the key points. Alternatively, if it is felt essential to keep the instructions as they are in full, we would recommend that they are provided on card for the respondent to read before the task commences. Here is a cut down version of the instructions which could be used:

Next, I am going to give you a letter of the alphabet, for example the letter ‘B’, and I would like you to say as quickly as you can all of the words that you can think of that begin with that letter. You may say any word except proper names of people or places, like 'Barbara' or 'Boston'. Also, do not use the same words again with a different ending, such as 'bake' and 'baking'. Often people think of a few words and then draw a blank. If this happens, just keep trying. You will have **one minute** to do this so keep trying to think of words until the minute is up. Is this clear?

- Consideration needs to be given around the appropriateness of this task for respondents who are interviewed in English but use it as their second language. If respondents are at an unfair advantage to the rest of the survey population, because of language, then there is likely to be systematic bias in responses from this subgroup within the survey sample. The data for this group will appear to indicate more problems with semantic or phonemic fluency (i.e. low levels of correct responses), however had individuals within these groups received the task in their own language, the number of correct responses could look very different (i.e. higher levels of correct responses).
- If a decision is made to ask this task of non-native English speakers, consideration should be given to the choice of letters. Cognitive interview data suggests that the letter ‘A’ is problematic (as respondents letters which began with other vowels, such as ‘U’ and ‘O’ when given ‘A’) and also the letter ‘F’ could be easily misheard or confused with ‘S’.
- Our final recommendation for this task, which is irrespective of whether or not it is asked of non-native English speakers, is to provide interviewers with very thorough instructions and briefing materials. Interviewers should be briefed on how to treat :
  - Brand names, such as ‘Frosties’
  - Names of people which could also be nouns, such as ‘Amber’ and ‘Holly’
  - Words which can be both adjectives and proper nouns need to be included too, with examples to help clarify the differences where necessary. The use of the word ‘French’ could be used to demonstrate that it should be counted as correct, in the FAS test, when used as an adjective (such as ‘French fries’ or ‘French windows’), however where used to name the language itself, and therefore a proper noun, would be incorrect.

Final Decision / Implementation

- Given the unfair advantage given to native English speakers, it was felt that excluding non-native English speakers would be prejudicial.
- Verbal fluency is normally measured with four tests, including all three letters F, A and S plus naming animals during a one minute timed period. Other studies have used animal naming rather than the letters.
- Given the difficulties administering this test, even in English, the disadvantage posed for non-native English speakers, and to remain comparable with other studies, the animal naming protocol was used in Wave 3 of *Understanding Society.*

3.6 Immediate Word Recall Task & Delayed Word Recall Task

In the *immediate word recall* task interviewers read a list of 10 commonplace words to respondents and then asked the respondents to recall as many words as they can. This task aims to assess aspects of memory. Interviewers were instructed to read each item at a slow steady rate, one word every two seconds. Four different lists were cognitively tested with interviewers rotating the list they used in each interview (see below).

The second element of the task aimed to measure *delayed word recall*. Respondents were asked to recall the list again after completing some of the other cognitive functioning tasks (i.e. the second part of the prospective memory task, the time orientation task, and the numerical ability items). Respondents were not informed in advance they would be asked to retain the word list and recount it for a second time around. Both the immediate and the delayed word recall task are used in HRS and ELSA, although the prompt used in the delayed recall test differed from those used in these two surveys.

The wording of the introduction and instructions, and the four lists used are detailed below.

Task Wording

I'll read a set of 10 words and ask you to recall as many as you can. We have purposely made the list long so that it will be difficult for anyone to recall all the words, most people recall just a few. Please listen carefully as I read the set of words because I cannot repeat them. When I finish, I will ask you to recall aloud as many of the words as you can, in any order. Is this clear?

List One	List Two	List Three	List Four
HOTEL	SKY	WOMAN	WATER
RIVER	OCEAN	ROCK	CHURCH
TREE	FLAG	BLOOD	DOCTOR
SKIN	DOLLAR	CORNER	PALACE
GOLD	WIFE	SHOES	FIRE
MARKET	MACHINE	LETTER	GARDEN
PAPER	HOME	GIRL	SEA
CHILD	EARTH	HOUSE	VILLAGE
KING	COLLEGE	VALLEY	BABY
BOOK	BUTTER	ENGINE	TABLE

Immediate Recall: Now please tell me the words you can recall

Delayed Recall (after completion of the orientation to time task, the second part of the prospective memory task and the numerical ability task): Now please tell me the words you can recall from the list of ten words I read out to you earlier

Aims of Cognitive Testing

The aims of the cognitive testing were to:

- Establish whether respondents understand what they are being asked to do (both the first time and the second time they are asked to recall the words).
- Establish whether the instructions are clear, and if not how they could be improved. Part of this process was to check whether respondents understood the word 'recall.'
- Establish whether the words used are commonly understood by everyone, including non-native English speakers

The findings of the cognitive testing are reported below. Findings on each of the above differed dependant between the immediate recall task and the delayed recall task so these will be discussed separately.

Findings on Immediate recall task

Understanding of task

The task was well understood by all respondents. For the most part instructions were felt to be clear by both respondents who spoke English as their primary language and by non-native English speakers. Respondents did not voice any difficulties in understanding any of the items on the list of words used. Likewise, the steady pace interviewers adopted when reading out the items was felt to be appropriate.

The only problem with the instructions was the word 'recall' caused confusion for respondents for whose English was language rated as 'below average' or 'poor.' These respondents either:

- Asked for clarification on the word 'recall'; or
- Asked for the word 'recall' to be repeated.

Despite this set-back such respondents were able to get the gist of the task without further clarification from the interviewers. Nonetheless, it is recommended the word recall be substituted for a more commonplace word (i.e. remember) in order to simplify the instructions before the task is administered in *Understanding Society* Wave 3.

Task performance

Respondents varied in terms of their ability to perform the memory tasks. For the immediate recall task the majority of respondents fell within standard parameters (Seven items plus or minus two)[8]. In the cognitive testing sample eight respondents could only recall four items or less at the immediate word task. There was no clear pattern in terms of memory performance and whether or not English was the respondent's primary language (see below).

[8] Miller GA (1956), The magical number seven plus or minus two: some limits on our capacity for processing information, *Psychological Review* **63** (2), 81–97

Table 3.61: Number of respondents recalling 5-9 items or more or 4 items or less by primary language.

Primary language	English	Other
Recall within standard parameters (i.e. respondents recalled between 5-9 items)	18	17
Respondents recalled 4 items or fewer	3	5
Total	**21**	**22**

It should be noted that as the sample used is small and purposively designed it is not appropriate to use these figures as statistically significant or to draw any inferences from them about task performance across the general population. The purpose of this table is to illustrate there was no distinct connection between primary language and task performance.

In addition, it should be noted that there was equally no clear link between language ability and poor task performance. Non-native English speakers who recalled 4 items or fewer varied in their English ability, with some being rated as 'Poor' by their interviewer and some being rated as 'Fairly Good.'

On probing, non-native English speakers who had more difficulty with the task stated they felt their task performance was due to their memory, not their understanding of the task. For example, one respondent (Female, Aged 35-59, Pakistani, English rated as 'Fairly good') discussed how she often forgot things in her day to day life (such as telephone messages) and felt this is why she could not remember the items, rather than through any issues with English being a second language. Similar explanations for forgetting items were given by people for whom English was their primary language.

Findings on delayed recall task

Understanding of task

Unlike in the immediate recall task there was some confusion by respondents over the task. This confusion was thought to arise due an interaction between the wording of the prompt and interference from other survey tasks. For example, it was felt that the FAS task (which came between the immediate and the delayed recall test) interfered with the delayed recall task. Interviewers noted that respondents started repeating words they had given at the FAS (i.e. words beginning with the letter they had been given: F, A or S) rather than words on the list for this task. This confusion occurred in respondents for whom English was their primary language as well as Non-native English speakers.

In general respondents commented the delayed recall instruction was not wholly clear in what list was being referred to. One interviewer, who was familiar with the ELSA wording of the prompt, asked respondents which of the two prompts they found to be clearer.

Task performance

Respondents did not anticipate that they would be asked to recall the list of words again (in line with task intentions). As is to be expected fewer items were recalled by respondents during the delayed recall task. This was true regardless of primary language (see table below).

Table 3.62: Number of respondents recalling 5-9 items or more or 4 items or less by primary language.

Primary language	English	Other[9]
Respondents recalled between 5-9 items	13	7
Respondents recalled 4 items or fewer	8	14
Total	**21**	**21**

The purpose of this table is to illustrate that the connection between primary language and task performance is unclear. Although those with English as a primary language may appear to have performed better in this task due to the small sample size it is not appropriate to use these figures to draw any inferences about task performance between the two groups. It should be noted there was no clear link between task performance and language ability; Respondents who performed well in the task (i.e. recalling 5 words or more) varied in their English proficiency, with their Interviewer ratings of English varying from 'Very Good' to 'Poor'. This points to language ability not being the deciding factor in task performance.

In addition it should be noted that the time lapse between the immediate and the delayed recall request was overly long for some respondents, because of probing, and longer than would be desirable in a survey. Therefore, some cases of poorer performance (where respondents recalled 4 items or fewer) could be an artefact of cognitive testing, and that low scoring respondents may have achieved higher scores in a standard survey interview context.

Finally it was noted post-testing that there was a longer gap between the immediate and delayed recall task with certain groups of respondents, i.e. older respondents. Respondents aged 60+ had to answer additional questions (i.e. the time orientation task) before being asked to recall the word list the second time around. This could lead to a bias in the results collected as respondents over 60 may recall fewer words than younger respondents not because of diminished capacity but because they have to complete an additional task in between time one and time two. This means the memory trace in older respondents will have more time to decay, which in turn could impact the number of items recalled by older respondents the second time round. Therefore the positioning of the time orientation task needs to be reconsidered.

[9] Please note one 'Other' language respondent did not complete the delayed word recall task as the interview was terminated early due to an unforeseen interruption. Therefore the total number of 'Other' language respondents included in this table is 21 rather than 22.

Steps need to be taken to increase the consistency of the task administration so differences in performance can be confidently attributable to differences in the respondents and not differences in the task set. Therefore the positioning of the time orientation task needs to be reconsidered. We would recommend, especially if comparability with ELSA is desired, that the number of tasks which come between the immediate and delayed recall tasks mirrors the number, as much as is possible, on ELSA.

General Findings

A number of respondents mentioned on the probing for this task how they sometimes have concerns about their memory. Although respondents did not appear overly distressed when they could not remember items from the word lists it did raise wider issues for them, such as when they forget things in their day-to-day lives. It was felt providing some form of literature to the respondents (i.e. on what to do if they had any concerns about their memory) could be beneficial as part of a wider duty of care associated with conducting this type of research.

Key Issues and Recommendations

In general respondents understood the immediate word recall list regardless of their primary language or their English ability. Respondents understood the words used on the list and the instructions. One small alteration we recommend would be to amend the word 'recall' in the instructions to read 'remember' as this word was more commonly used.

Immediate Word Recall: New Wording

I'll read a set of 10 words and ask you to as many as you can. We have purposely made the list long so that it will be difficult for anyone to ~~recall~~ remember all the words, most people ~~recall~~ remember just a few. Please listen carefully as I read the set of words because I cannot repeat them. When I finish, I will ask you to ~~recall~~ remember aloud as many of the words as you can, in any order. Is this clear?

The delayed word recall test requires some alteration in terms of both its placement and its wording. Therefore we recommend:

- The FAS task, and any other tasks which ISER are intending to include which make reference to lists of words, should be moved so it does not come between the immediate and delayed word recall task.
- The Time Orientation task should be moved so it does not come between the immediate and delayed word recall task
- The Numerical Ability items and the Prospective Memory task were not thought to be interfering factors so these can remain between the two word recall tasks.

In addition, we recommend that the ELSA introduction to the delayed words recall task should be used, rather than introduction that was used in the cognitive interviews. Please see below for wording suggestion:

Delayed Word Recall: New Wording

A little while ago, you were read a list of words and you repeated the ones you could remember. Please tell me any of the words that you can remember now.

Finally, it is felt that respondent advice materials (on what advice is available if they have concerns about their memory) should be made available after the *Understanding Society* interview as part of a wider duty of care to panel members.

Final Decision / Implementation

- The instructions for the immediate word recall test were updated, largely, as recommended: "I would like you to remember as many as you can. We have purposely made the list long so it will be difficult for anyone to remember all the words. Most people remember just a few. Please listen carefully to the set of words as they cannot be repeated. When it has finished, I will ask you to recall aloud as many of the words as you can, in any order. Is this clear?" Note that the words were read out either by computer or by the interviewer if there were problems with the computer reading the words out for respondents. The quoted text, here, is what was included after the instruction about who read out the words.
- The ELSA delayed word recall instructions were used as recommended.
- The placement of the immediate and delayed word recall were considered. In between the immediate and delayed recall tasks are the "Serial 7" and "Number Series" tests, but no other verbal ability tests. The revised verbal fluency test, Animal Naming, comes immediately after the delayed word recall in *Understanding Society* Wave 3.

3.7 Orientation to time

The following two questions, taken from the English Longitudinal Study of Aging (ELSA), as a measure of orientation and were asked of respondents aged 60 and over in the cognitive interviews. Occasionally interviewers missed the routing instructions and asked them of people under the age of 60, however as no specific issues were found with the younger respondents, and all were able to answer without difficulty or confusion, below we only report on what was found amongst those aged 60+. The interest, we assume, is how older respondents found the questions and the aims of the cognitive interviewing were to explore whether respondents understand the term 'date' and whether the task causes any distress.

{ASK ONLY IF R IS AGED 60 OR OVER – A1=3}
Q23 INTRO.
READ OUT: "We're interested in how memory actually works. We find that even people with very good memories seem to forget some things from time to time. The next questions are a little different, but are often asked on studies about memory".

Q23
Please tell me today's date.
ENTER RESPONDENT'S ANSWER AND INDICATE IF IT IS CORRECT OR INCORRECT

Q23
What day of the week is it?
ENTER RESPONDENT'S ANSWER AND INDICATE IF IT IS CORRECT OR INCORRECT

Findings

There was no evidence found to suggest that these two questions cause distress nor is there any reason to believe that the term 'date' was a problem, on the whole. Respondents seemed happy enough to answer the questions even if they were unable (either consciously or subconsciously) to provide a complete response: day/month/year and day of the week. Very occasionally did a respondent indicate feeling embarrassed related to not being able to provide part of the answer (incidentally this tended to be the day of the month). There were no observed differences in the way non-native English speaking respondents tackled these questions (apart from the one case, mentioned below although we can't be sure that this was language related), and detail obtained through probing suggests that omissions were due to memory rather than inability to understand the question.

There were respondents who:

- Gave confident and correct answers for the date and day of the week;
- Answered correctly, but with an element of uncertainty; and,
- Got some parts of the answers correct (i.e. month) and other parts incorrect (day of the month), or omitted parts all together (i.e. the year).

Those who were confidently correct just knew it; had indicated the date on a recent form they had filled out; had had a doctor's appointment so knew what date it was or had posted a birthday card and therefore were reminded of the date at that time.

All but one respondent in the sample answered correctly for *day of the week*. One Indian Male, aged 80, with 'Below average' English failed to provide a date and the day of the week. He claimed that he found the task easy and that he understood, however he asked the interviewer to repeat both questions and just repeated to himself "*date?*" and "*day?*". It could be that the whole request threw him, and that language was a barrier, however it could also be that this man had genuine orientation difficulties. Unfortunately the interviewer was unable to explore this further, as his level of English made probing very difficult.

Recommendations

- Our recommendation is to retain these questions in their current format.
- Consider the necessity of the Introduction, which may well be needed if these questions come after a task, or set of tasks, which are quite different.

Final Decision / Implementation

- The "Orientation to Time" test was not included in *Understanding Society* Wave 3 for reasons other than cognitive testing. It was felt that there was not enough questionnaire running time to include this test in addition to the other tests which were included.

3.8 Numerical Ability Items

The final cognitive functioning task tested were a series of items on Numerical Ability. These questions were taken from ELSA. Respondents were first read three mathematic problems set in an everyday context. Depending on whether they answered these questions correctly or incorrectly respondents were then routed on to further mathematic problems of varying levels. Interviewers were instructed not to assist respondents or to inform them whether they had answered each question correctly or not. Details of the introduction to the task and the question wording and routing are provided below.

Q25 INTRO:
Next I would like to ask you some questions which assess how people use numbers in everyday life.

{ASK ALL}
Q25
In a sale, a shop is selling all items at half price. Before the sale, a sofa costs £300. How much will it cost in the sale?
1. £150 (correct answer)
2. Wrong Answer
3. DON'T KNOW/ REFUSAL

{ASK ALL}
Q26
If the chance of getting a disease is 10 percent, how many people out of 1,000 (one thousand) would be expected to get the disease?
1. 100 (correct answer)
2. Wrong Answer
3. DON'T KNOW/ REFUSAL

{ASK ALL}
Q27
A second hand car dealer is selling a car for £6,000. This is two thirds of what it cost new. How much did the car cost new?
1. £9,000 (correct answer)
2. Wrong Answer
3. DON'T KNOW/ REFUSAL

{ASK IF respondent responded <u>incorrectly</u> on all three previous questions}
Q28
If you buy a drink for 85 pence and pay with a one pound coin, how much change should you get back?
1. 15 pence (correct answer)
2. Wrong Answer
3. DON'T KNOW/ REFUSAL

{ASK IF respondent responded correctly on any of three previous questions}

Q29

If 5 people all have the winning numbers in the lottery and the prize is £2 million, how much will each of them get?

1. £400,000 (correct answer) → ASK Q30
2. Wrong Answer
3. DON'T KNOW/ REFUSAL

{ASK IF respondent responded answered Q29 correctly}

Q30

Let's say you have £200 in a savings account. The account earns ten percent interest each year. How much would you have in the account at the end of two years?

1. £242 (correct answer)
2. Wrong Answer
3. DON'T KNOW/ REFUSAL

Aims of Cognitive Testing

The aims of cognitively testing the Numerical Ability items were to:

- Establish whether performance was influenced by understanding of key terms such as 'percent' 'chance' or 'interest.' Cognitive tested particularly focused on whether non-English speakers had any difficulties understanding these terms which could lead to a bias in the survey results (i.e. where certain groups perform worse at the Numerical Ability items due to language issues rather than poorer numerical ability).
- Establish whether this task caused any undue anxiety or distress that could influence the response rate of future *Understanding Society* Waves

The results of testing these two areas, and the resulting implications, are discussed in the following sections.

Comprehension Issues

General understanding of task

Respondents tended to understand the questions although there were multiple occasions when respondents asked for the questions to be repeated. This behaviour occurred in both respondents for whom English was the primary language and for Non-native English speakers. Respondents varied in terms of whether they tried to write down the questions and also whether they used a pencil and paper to assist in working out their answers.

It should be noted that older respondents in particular showed some difficulty in retaining the question and asked for repetitions. This resulted in errors despite the fact the respondents, during probing, claimed they did understanding how to carry out appropriate numerical manipulations. It was suggested by respondents that it would have been easier to answer the questions if they were written down.

Understandings of 'Percent' (Q26) and 'Interest' (Q30)

In general respondents appeared to have a correct understanding of percentages, whether or not they answered Q26 correctly. Two respondents within our sample did not understand the term percentage. One respondent, (Female, Aged 35-59, White British) described the word percentage as meaning a 'share' of something but could not explain further, she did not answer Q26 on percentages correctly. In contrast another respondent (Female, 35-59, Bangladeshi, English=Poor) did not understand the term percentage at all. This respondent had received little formal education and this area of mathematics had not been covered.

The above suggests that there may be some cultural influences that will impact on whether respondents can correctly answer Q26. However, these differences will be mediated through whether or not the respondent has had a certain level of formal education. Respondents from backgrounds who have had higher exposure to formal education are likely to perform better. However, this is not the 'be all and end all' of successful task completion as respondents who have received formal education can also struggle with the concept of percentages.

Therefore Q26 can still be considered a valid measure, as it does establish whether a respondent can complete a calculation on percentages. Errors made when doing this question were due to either calculation errors or not understanding the key construct, rather than purely linguistic issues. A useful option for analysis would be to collect supplementary data on exposure to formal education so that interactions between formal education, ethnicity and performance can be quantitatively examined. This should also prevent inappropriate conclusions about any correlation between ethnicity and numerical ability being made if education happens to be the mediating factor.

The cognitive testing unearthed no problems related to the understanding of 'interest' as used in Q30. However, it should be noted that this question was only tested on a limited number of respondents i.e. only those who answered all previous numerical ability items correctly were routed on to this question. It was worth pointing at that one respondent (Female, 35-59, Pakistani, English=Fairly Good) discussed how she used an Islamic bank account that does not accrue interest. However, she was still aware of what the term meant and made appropriate efforts to answer the question.

Comprehension issues in Non-Native English Speakers

Other than the above there were a few specific issues related to the Numerical Ability questions that occurred in Non-native English speakers. Firstly, problems occurred with respondents mishearing the question. This resulted in respondents becoming frustrated and asking for the question to be repeated. These problems tended to occur in respondents whose English was rated as 'Below Average' or 'Poor.' For example, respondents with poorer English tended to mishear the term 'two-thirds.' One respondent (Female, 18-34, Polish, English=Below average) incorrectly heard 'two-thirds' as 'two-thirty' which lead to some confusion. This respondent ascertained what the question was getting at and calculated the correct answer. On other occasions mishearing the question

did lead to respondents making errors, whereas on probing respondents were able to give the correct answer.

The above suggests that troubles with answering were sometimes related to language ability rather numerical ability. This is problematic as it could lead to a bias in results whereby respondents from certain groups (i.e. those who don't have English as their primary language) could, on aggregate, have lower scores on the numerical ability items than those for whom English is the primary language. These scores would not be a reflection of numerical ability but rather linguistic ability. As these problems were due to respondents mishearing the questions it is recommended that the numerical ability items are administered visually as opposed to orally, i.e. included as part of a self completion questionnaire, or administered via CASI.

One other issue related to linguistics was raised in relation to Q29. One respondent (Male, 35-59, Pakistani, English=Fairly good) gave an incorrect answer to this item due to his misunderstanding the term 'million.' This respondent thought the term English word *million* was equivalent the Hindi word *crore* and worked out his answer based on this principle. However, the word *crore* actually translates to ten million so subsequently this respondent answered the question incorrectly.

Again, this example demonstrates that issues with language can interfere with performance in the numerical ability items which makes their validity questionable. To overcome the above it is recommended that the term 'million' is not used in any of the numerical ability items. An alternative approach would be to use numbers that are more commonly understood (i.e. refer to thousands instead) or to present numbers visually displaying the appropriate number of zeros.

Emotional response to task

One key element of the cognitive testing was to establish whether the numerical ability items caused any undue anxiety or distress that could influence the future response rates.

Generally, respondents reacted well to being asked these questions. Where frustration did occur it was due to respondents mishearing the question and having to ask for it to be repeated. Respondents did not demonstrate visible distress, even when they found the questions difficult. This was true of respondents regardless of their English ability or background. Respondents appeared content to admit that maths was not their strong point.

"*I'm just not very good at Maths, that's all."*

(Female, Aged 35-59, Indian, English rated as 'Fairly good')

The above findings contrast with the distress displayed by the respondents who had problems completing the Number Series Task. It was felt that this disparity was due to the fact the Numerical Ability items were staggered by difficulty (i.e. items started off easily and became progressively more difficult) and the fact respondents were more familiar with the everyday context on the items. Respondents pointed out that in their day-to-day life they would usually use a calculator to do these tasks; therefore they did

not feel the need to be able to work out the answers in their heads. Respondents did not report feeling under time pressure when answering these questions.

Key Issues and Recommendations

To summarise, the key issues related to the numerical ability items were as follows.

- The term 'interest' was generally understood.
- There were some issues with respondents not understanding the term 'percentage'. This occurred in both those for whom English was a first language and Non-native English speakers. Cognitive testing cannot tell the likely extent of the prevalence of this problem between the two groups. It is possible that certain groups may be unfamiliar with the term due to a lack of formal education; therefore it would be useful to use level of education as an analytical variable when looking at the relationship between task performance and ethnicity.
- Respondents, particularly those with 'below average' and 'poor' English, misheard the questions. This lead to these respondents requiring more repetitions which made administering the items more time consuming. It was felt this mishearing lead to errors on occasion.
- There was a linguistic issue related to the use of the word 'million'.
- Respondents did not appear to be distressed by the Numerical Ability items. Where frustration did occur it was due to having to ask for items to be repeated. Respondents did not report feeling 'time pressure' at these items.

It is recommended to overcome the need for the questions to be repeated (and to prevent respondents mishearing key terms) that these questions be visually presented (i.e. on paper or in CASI). However, as the routing used is based on whether or not the respondent gives a correct response it would not be appropriate to administer these questions as part of a paper self-completion questionnaire. Therefore, if CASI is not possible, it is recommended that the questions are presented on showcards for respondents to refer to as necessary. In addition paper for writing on should remain available for respondents wish to use it.

In addition it is recommended the word 'million' is avoided, or if it is used it presented numerically (i.e. 1,000,000) to prevent variations in understand the word interfering the calculations involved.

Final Decision / Implementation

- Visual presentation of these items was incorporated as recommended. Respondents were read the question and the exact problem appeared on a show card for their reference. The cognitive ability tests in *Understanding Society* were also administered via CATI to a small set of respondents traditionally only interviewed by telephone. These respondents were not sent a show card.
- The items were otherwise carried out without any changes over the ELSA versions.

4 Implementation issues for Understanding Society

The purpose of this chapter is to report some of the key feelings and thoughts respondents had when interviewers explored how they found the questions overall, at the end of the cognitive interviews. Below, in section 4.1, we summarise these. In section 4.2 we make suggestions for the order in which we feel the tasks should be administered, based on findings from cognitive interviews.

4.1 General feelings about the questions

As much of what respondents talked about has already been covered in chapters 2 and 3, here we briefly summarise some of the after thoughts mentioned by respondents in relation to the experience of taking part and being asked the questions and tasks.

Universally respondents thought the purpose of these questions and tasks were assessments of people's memory, numerical ability and intelligence. Occasionally respondents indicated that they would have liked more explanation about *why* they were being asked to do the task and it was also felt that some advanced warning would have been helpful. Although there were respondents who indicated that they were surprised when they received the tasks that they did, as our recruitment materials went into little detail about this component of the interview, there were no respondents who appeared to have been offended and/or were left angry by the tasks. We would therefore suggest that similar procedures are adopted for the *Understanding Society* (wave 3) interview and that little information is given to respondents in advance of the administration of the tasks;. Generally respondents were happy enough to do the tasks and, when frustration did occur, interviewers were able to reassure and comfort respondents. The risk of providing too much information in advance is that respondents could refuse to take part in this section of the interview.

In summary, the following thoughts and feelings were collected at the end of the interviews:

- It took you back to what it was like when you were at school
- Tasks were similar to those carried out during job applications, especially at recruitment agencies
- Some tasks were more difficult than others (notably the number series task)
- Feelings of panic about the more difficult tasks (notably the mathematical ones)
- Certain groups might find some of the tasks difficult: the elderly because of memory and the uneducated
- Feelings of concern about whether you were getting the questions correct
- A feeling of surprise when faced with these questions as was not pre-warned as to what they would be about and/or like (as mentioned above)
- Never done anything like this (tasks) before

- The tasks were fun, interesting and enjoyable
- Would have liked some feedback on how performed in the tasks.

Additionally some specific feelings from non-native English speakers within the sample indicated:

- that they did find some tasks difficult (e.g. the serial 7 task because of the words 'and 7 from that') and naming words beginning with the letter 'F', at the FAS test.
- that despite expressing that there were no major language problems, they could still feel that language hindered them somewhat
- difficulty experienced as a result of having to think in two languages, translate etc.
- that some respondents had to count numbers in another language (i.e. not English)
- that even after the task was completed and was eventually understood, a word might still not be familiar: One Polish respondent (Female, 18-34, with 'below average' English) wanted to look up the word 'series' in her polish dictionary, indicating that this word was unfamiliar to her in English.

4.2 Order and placement of the cognitive functioning tasks

The table below shows the order that the tasks appeared in the test questionnaire in the left-hand column and the order we would recommend for the *Understanding Society* survey interview, in the right-hand column. This order is based on findings from individual tasks however if additional tasks are added, which were not included as part of this pre-testing, we can not guarantee that they won't interfere with the suggested order.

It will be important to monitor potential order effects, either by gaining feedback from survey interviewers and/or by including a few respondent debriefing questions to directly ask the respondent whether the order they received the tasks in felt logical etc.

Test questionnaire order	Survey order	Final Decision/Implementation
Perceptions of Memory	Perceptions of Memory	Perceptions of Memory
Cliptask (A)	Orientation to Time	Immediate Word Recall
Serial 7 task	Cliptask (A)	Serial 7 task
Number Series Task	Serial 7 task	Number Series task
FAS Test	Immediate word recall task	Delayed word Recall task
Immediate word recall task	Cliptask (B)	Animal Task, replacing FAS Test
Orientation to time task	Number Series task	Numerical Ability items
Cliptask (B)	Numerical Ability items	
Numerical Ability Items	Delayed word Recall task	
Delayed word Recall task	FAS Test	

Final Decision / Implementation

- After a final determination of which tests to carry given the amount of time allowed for cognitive testing within *Understanding Society* Wave 3, the tasks that were carried forward into Wave 3 and shown in order they were administered in the last column of the table above,

Appendix A Appendix A: Cognitive Interviews Methodology

Cognitive Methods

Cognitive interviewing methods, which are derived from cognitive psychology, allow researchers to examine (in great detail) the question-and-answer process. This form of testing helps to identify problems with questions and also helps to illuminate possible solutions to these problems. Cognitive interviewing techniques focus on four main processes:

- how respondents understand and interpret questions;
- how respondents recall the information required to answer questions;
- the judgements respondents make as to what information to use when formulating their answers; and
- how respondents respond to the questions.

The two most frequently used cognitive interviewing techniques are think aloud and probing. In this study both techniques were used. In the think aloud technique, respondents are asked to say out loud what they are thinking as they go about completing the task of answering the question. For example, respondents are encouraged to articulate what information they are drawing on to complete the task, what decisions they are making about what information to draw on and how they decide on their answer to the questions.

In the probing technique the interviewer asks specific questions or probes which provide information on how respondents interpret question wording and what processes they go through when deciding how to answer. The probes used are partly pre-scripted and provide a guide to the topics to be covered in the cognitive interview. However, as cognitive interviews are qualitative in nature, interviewers also have the freedom to probe on an issue that may be unique to the respondent and issues that have not been foreseen in advance. Probing was carried out concurrently, once the respondent had answered one or a number of survey questions or cognitive function tasks. A copy of the probe sheet used can be found in Appendix B.

Recruitment and Conduct of Interviews

All respondents were recruited through door-step screening methods. The areas in which interviewing took place were:

- Manchester;
- Essex;
- Nottinghamshire;
- Leeds;
- Sussex.

All interviews were conducted in May 2010. Interviews were conducted face-to-face at a location convenient for respondents (typically the respondent's home) on a one-to-one basis. Interviews lasted approximately one hour. Interviews were digitally audio-recorded with respondents' consent. Respondents were given a £20 High Street voucher as a thank you for taking part in the interview. Confidentiality and anonymity were assured throughout.

Analysis

All the interviewers made detailed notes on each of their cognitive interviews in a structured 'notes-template' document, with reference to the recording of the interview. The notes template is organised by test question and the key measurement issues to be explored i.e. the aims of the test. All notes contained verbatim references to the original interview recordings. These notes, the recordings of the interviews and the completed test questionnaires were reviewed as part of the analysis process.

Notes were analysed using a content analysis or 'Framework,' approach. A matrix was set up, which listed the areas under investigation *across* the page and cases *down* the page. The matrix included a summary of the characteristics of each respondent; such as their gender, age, ethnicity, whether English was their primary language and their English proficiency. Thus data could be read horizontally, as a complete case record for an individual, or vertically, by question area under investigation, looking across all cases.

Once the matrix was completed the data were reviewed. In reviewing the matrix the full range of problems with the question were explored and appropriate recommendations for improving the questions made.

Appendix B: Interview Protocol

UNDERSTANDING SOCIETY WAVE 3

P3022 TEST QUESTIONNAIRE AND PROBE SHEET

The Main Aim
• To test how these questions work with different segments of the survey population
The Main Objectives for the interview
• To examine Rs' understanding of the questions • To examine Rs' ability to answer the questions • To examine issues of sensitivity • To explore whether respondents understand the instructions for the tasks and therefore know what it is they are supposed to do • To explore whether respondents feel that they have enough time to answer each of the cognitive function tasks • To explore whether respondents understand the requirements of the tasks • To explore, with respondents, what they think the purpose of the cognitive function tasks are and why they were asked to do them

Introduction
Aim: To introduce yourself and gain informed consent

- Introduce **yourself, the National Centre, and the study**
- The National Centre for Social Research conducts a survey called *Understanding Society*. This is a very large survey funded by the Economic Social Research Council. NatCen is working with academic colleagues from the University of Essex at the Institute for Social and Economic Research (ISER), together with colleagues from the University of Warwick and the Institute of Education to run this survey. The scale of the survey will allow researchers to focus in on key sections of the community, such as older people, parents, people from ethnic minorities or people with low incomes.
- To ensure that the questions that are asked in this survey work as the researchers intend we are carrying out interviews to test the questions.
- Explain that you will be asking them to answer a series of questions and at various points throughout the questionnaire you will then be asking them to tell you how they went about answering the survey questions.
- We are not just interested in the answers they give but also in what they understand the questions to mean and the process by which they arrive at their answer. Stress there are no right or wrong answers and this **isn't a test**. We are just trying to explore if the questions work as the researchers intend, if they don't we have time to change them.
- Remind them:
  - that participation is voluntary;
  - the interview could last up to one hour and if they want to take a break they can do so any time during the interview;
  - they can have a friend/family present at any time during the interview as long as they don't mind them listening to the interview; and
  - everything they tell us will be useful.

- Stress the confidentiality of the process; all the findings will be reported anonymously. Please make sure they understand this.
- Explain that you will be recording the interview so that you don't have to make lots of notes during the interview. Check this is ok with the respondent. If they ask who will have access to the recording, tell them that only the small research team at NatCen and ISER will, and that recordings are stored securely electronically.
- Ask whether they have any questions before you start

Name of Interviewer: _____

Date of Interview: _____

Serial ID Number: _____ (e.g. P3022_MB01)

INTERVIEWER:

- **Think aloud** Please ask the R to tell you what they are thinking when they answer the questions. Use the windows example or another example if you find it helpful.
- Use the probes to illicit specific information that we are looking for.
- DO NOT give respondent paper, unless the task instructs you to

Background

A1. Which age group are you in? READ OUT…

1. 18-44
2. 45-59
3. 60+

A2. Are you... READ OUT…

1. Single, that is, not currently married or in a legally recognised Civil Partnership,
2. Married and living with husband/wife or in a legally recognised Civil Partnership and living with civil partner,
3. Other

{IF A2=1 OR 3}

A3. May I just check, are you living with someone in this household as a couple?

1. Yes
2. No

INTERVIEWER: Rs who answers No to A3 will be asked Q15 (SECTION 2).

SECTION 1: Social networks

{ASK All}

Q1. We next have a few questions about your friends. How many friends would you say you have?

1. 0 → Go to Q15
2. 1 → ASK Q3 – Q6
3. 2 or more (ENTER NUMBER) [ ]

Q2. And how many of these are close friends?

(ENTER NUMBER) [ ]

Testing Aims

Q1 and Q2*: To identify the size of the respondent's social network. We are particularly interested in who the people who report few friends (i.e. 0 or 1 at Q1) are including and excluding in their answers.*

Probes Q 1

- To help us to understand if the words we are using in the questions are appropriate can you tell me please, what "friend" meant to you at this question?
- How did you decide on your answer? (Explore if R wasn't sure who to include or exclude e.g. inclusion of family members)

Probes Q2

- What did "close friend" mean to you when you answered this question? (Explore if different from friend)
- How easy or difficult to did you find this question to answer? (Explore sensitivity and if R wasn't sure who to include or exclude)

INTERVIEWER NOTE: THE REST OF THIS SECTION IS LOOPED FOR A MAXIMUM OF THREE FRIENDS

{If Q2=2 or more}

INTRO: "Now thinking of up to three of your closest friends, we would like to ask you some questions about each of them in term. Don't worry about the order which you tell us about them – we won't assume that the first friend you tell us about is your best friend".

FRIEND ONE

Q3. Now thinking about your first friend, what is this friend's first name?

INTERVIEWER: IF RESPONDENT QUERIES WHY THEY ARE BEING ASKED TO GIVE THE NAME OF THEIR FRIEND, EXPLAIN THAT WE ONLY NEED IT TO IDENTIFY THE FRIEND IN THE NEXT FEW QUESTIONS ABOUT THEM.

ENTER FORENAME

SHOWCARD A

Q4. How did you meet each other for the first time?

1. He/she is a relative
2. Through my family
3. At work
4. In the neighbourhood
5. At school
6. At an organisation or club
7. Through common friends
8. Through my religious community
9. At a pub/club
10. Through the Internet
11. Other (Please specify)_____

Q5. How often do you see or get in touch with your friend either by visiting, writing or by telephone? Would you say…READ OUT

1. Most days
2. At least once a week
3. At least once a month, or
4. Less often?

{ASK IF Q4=10 first met "through the Internet"}

Q5b. You said that you met your friend through the Internet for the first time, have you ever met each other outside of the Internet?

1. Yes
2. No

SHOWCARD B

Q6. Does this friend share your tastes in any of the following?

CODE ALL THAT APPLY

1. Music
2. TV
3. Clothes
4. Films
5. Books or magazines
6. Sports

7. Politics
8. Religion
9. Other hobbies or interests

INTERVIEWER: IF RESPONDENT ONLY HAS ONE CLOSE FRIEND (I.E. IF Q2=1) NOW GO TO Q15

FRIEND TWO

{IF Q2= 2 or more}
Q7. Now thinking about your *second* friend, what is this friend's first name?

ENTER FORENAME

SHOWCARD A
Q8. How did you meet each other for the first time?

1. He/she is a relative
2. Through my family
3. At work
4. In the neighbourhood
5. At school
6. At an organisation or club
7. Through common friends
8. Through my religious community
9. At a pub/club
10. Through the Internet
11. Other (please specify)

_____

Q9. How often do you see or get in touch with your friend either by visiting, writing or by telephone? Would you say…READ OUT

1. Most days
2. At least once a week
3. At least once a month, or
4. Less often?

{ASK IF Q8=10 first met "through the Internet"}
Q9b. You said that you met your friend through the Internet for the first time, have you ever met each other outside of the Internet?

1. Yes
2. No

SHOWCARD B
Q10. Does this friend share your tastes in any of the following?

CODE ALL THAT APPLY

1. Music
2. TV
3. Clothes
4. Films
5. Books or magazines
6. Sports
7. Politics
8. Religion
9. Other hobbies or interests

INTERVIEWER: IF RESPONDENT ONLY HAS TWO CLOSE FRIENDS (I.E. IF Q2=2) GO TO Q15

FRIEND THREE

{IF Q2= 3 or more}
Q11. Now thinking about your third friend, what is this friend's first name? [this is just so that we can identify them as we're asking questions about them]

ENTER FORENAME

SHOWCARD A
Q12. How did you meet each other for the first time?

12. He/she is a relative
13. Through my family
14. At work
15. In the neighbourhood
16. At school
17. At an organisation or club
18. Through common friends
19. Through my religious community
20. At a pub/club
21. Through the Internet
22. Other (please specify)

Q13. How often do you see or get in touch with your friend either by visiting, writing or by telephone? Would you say…READ OUT

1. Most days
2. At least once a week
3. At least once a month, or
4. Less often?

{ASK IF Q12=10 first met "through the Internet"}

Q13b. You said that you met your friend through the Internet for the first time, have you ever met each other outside of the Internet?

1. Yes
2. No

SHOWCARD B

Q14. Does this friend share your tastes in any of the following?

CODE ALL THAT APPLY

1. Music
2. TV
3. Clothes
4. Films
5. Books or magazines
6. Sports
7. Politics
8. Religion
9. Other hobbies or interests

INTERVIEWER NOW PROBE

Q3 INTRO: Now thinking of up to three of your closest friends, we would like to ask you some questions about each of them in term. Don't worry about the order which you tell us about them – we won't assume that the first friend you tell us about is your best friend.

Probes

- How difficult or easy did you find this introduction to understand?
- Was it clear how I was going to proceed and ask about each friend?

Q3/Q7/Q11 (friend's first name)

Probes

How did you feel about giving the name of your friend(s)? (Explore concerns)

Q4/Q8/Q12 (how met friend)

Question Aims

- To understand the context in which the first encounter between friends occurred

Probes

- How easy or difficult did you find answering this question? (Explore how R decided on their answer and sensitivity about answering the question)
- *If asked more than once*: How easy or difficult did you find it to recall how you meet your different friends?
- *If asked once*: How easy or difficult did you find it to recall how you met your friend?

INTERVIEWER READ OUT: "To help us to understand if the words we are using in the questions are appropriate I would like to ask you about how you understood some of these words.

- When you answered the question about how you met your friend, what did you understand by "meet each other"?

EXPLORE ANSWER OPTIONS:

o 'In the neighbourhood'

o 'In my religious community' (*This is about meeting someone at church, temple, synagogue, mosque or functions or events related thereto: EXPLORE WHETHER R THOUGHT ABOUT ANY OF THESE).*

o 'Through the internet'

- Are there any options, if any, that you think are missing from the list?
- Are there any options that you think are inappropriate?
- *If R selected only one option*: Was only one option relevant for you at this question or would you have liked to have selected more than one option?
- *If R selected only one option*: How easy or difficult did you find it to choose one answer from the list?

Q5b/Q9b/Q13b (if ever met outside of the internet)

Question Aims

To identify friendships which are solely virtual: i.e., the nature of the contact is solely through the Internet or other media and the parties to the relationship have never been in the physical presence of one another.

Probes

- What did you understand by "outside the Internet" when you answered this question?
- How did you feel about answering this question?

Q5/Q9/Q13 (**how often sees/in touch with friend)**

Question Aims

To gauge the intensity of contact between friends by <u>any and all</u> communication channels

Probes

- What did you understand by "see or get in touch" when you answered this question? (Explore if see means to physically see or includes remotely seeking like on videocam)

- When you answered this question what ways of keeping in touch with your friends did you think about?
- How did you decide which answer option to select? (Explore understanding of answer options)

INTERVIEWER EXPLORE:

o if R thought about the 3 ways referred to at this question;

o if R thought about any digital modes of communication e.g. Skype, networking websites and instant messaging; and

o if R thought about another mode of communication.

Q6/Q10/Q14 (whether friend shares the same tastes as R)

Question Aims

To gauge homophily, similarity between R and the people they consider their best friends.

Probes

- What did you understand by "share your tastes" when you answered this question?
- How easy or difficult was this question to answer? (Explore if this varied by friend)
- Which options, if any, did you think were not appropriate? (Explore if any options are superfluous or if any options are missing)

SECTION 2: "living apart together" (nON-RESIDENT RELATOINSHIPS) [ASK TO NON-MARIED, NON-COHABITING RESPONDENTS]

{IF A3=2}

Q15. Do you have a steady relationship with someone you are not living with here, whom you think of as your 'partner'?

1. Yes
2. No

Q15 (Steady relationship with 'partner')

Question Aims

To identify long-term relationships between sample members and people who are not resident in the sampled household. These relationships should be akin to marriage or 'cohabitation' but for the non-residential nature*.*

Probes

- How easy or difficult was this question to answer? Why?
- What did 'partner' mean to you when you answered this question?
- What did 'steady relationship' mean to you at this question? (If R answered any question about meeting friend through the internet i.e. Q7, Q12 or Q17, explore if R thought about only the internet)

INTERVIEWER EXPLORE MORE QUALITATIVELY:

- Whether asking about a 'steady relationship with someone not living here' is appropriate.
- If there is ever a circumstance when this question is OK to ask.
- If ease or difficulty varied depending on the friend that the question was asked about

SECTION 3: COGNITIVE FUNCTIONING TASKS

INTRO TO COGNITIVE TASKS: READ OUT "Part of this study is concerned with people's memory and the ability to think about things. In the next section of the interview, we will do some memory and concentration tasks".

{ASK ALL}

Perceptions of Memory

Q16

First, how would you rate your memory at the present time? Would you say it is excellent, very good, good, fair or poor?

1. EXCELLENT
2. VERY GOOD
3. GOOD
4. FAIR
5. POOR
6. DON'T KNOW/ REFUSAL

{ASK ALL}

Q17

Compared to last year would you say your memory is now better, about the same, or worse now than it was then?

1. BETTER
2. ABOUT THE SAME
3. WORSE
4. DON'T KNOW/ REFUSAL

{ASK ALL}

Q18

Compared to two years ago would you say your memory is now better, about the same, or worse now than it was then?

1. BETTER
2. ABOUT THE SAME
3. WORSE
4. DON'T KNOW/ REFUSAL

PROBES

Q16

- How did you decide on your answer to this question?
- Explore understandings of different answer categories- what is 'excellent' memory compared to 'very good' memory? What is a 'good' memory compared to 'fair' memory? etc

Q17

- How easy or difficult was to compare your memory now to how it was **last year**? Why? When were you thinking about when you answered this question?
- What made you say [INSERT RESPONSE GIVEN]?

Q18

- How easy or difficult was to compare your memory now to how it was **two years ago**? Why? When were you thinking about when you answered this question?

- What made you say [INSERT RESPONSE GIVEN]?
- In general how did you find these questions on memory?

{READ TO ALL}

CLIPTASKA:

READ OUT: "Now I would like you to remember to do a task in order to assess everyday memory. At some point during the interview I will hand you this clipboard and a pencil {INTERVIEWER: Show respondent the clipboard}
When I do I would like you to write your Initials on the top left hand corner of the piece of paper attached to the clipboard. Is that clear?" *{If no repeat above}*

{ASK ALL}

SERIAL 7 TASK:

Q19 (a)

Now let's try some subtraction of numbers. One hundred minus 7 equals what?
{INTERVIEWER: If R adds 7 instead you may repeat question. Remember to explore this when probing}

ENTER NUMBER

(b) And 7 from that?

ENTER NUMBER

(c) And 7 from that?

ENTER NUMBER

(d) And 7 from that?

ENTER NUMBER

(e) And 7 from that?

ENTER NUMBER

INTERVIEWER: CODE WHETHER OR NOT RESPONDENT USED PENCIL AND PAPER/ ANY OTHER AIDS WHEN COMPLETING THE NUMBER SUBTRACTION.

5. R definitely used aid
6. Suspect R used aid but not certain
7. No reason to think R used aid
8. Refusal/ Don't know

SERIAL 7 TASK (Q19)

OBSERVATIONS

- Does respondent ask for the question to be repeated?
- Does respondent demonstrate any irritation/ distress doing this task?

PROBES

- How did you feel about being asked to do this task?
- How easy or difficult did you find this task? Why? Explore whether difficulty arose due to difficulties in numeracy OR misunderstanding the question or language barriers?
- What did you understand by term 'subtraction'? What did you understand by the term 'minus.'
- Each time I read out 'And 7 from that', what did you think I meant?
- Could this question be made clearer in any way? Or is it clear enough already?

{ASK ALL}

NUMBER SERIES TASK

Q20

INTRO.

Next I'm going to read you a series you several numbers and I'd like you to write them down. There will be a blank number in the series that I read to you. For each number series problem I would like you to tell me what number goes in the blank.

For example, if I said the numbers "1 2 BLANK 4," then you would simply reply with "3".

Some of the problems may be easy but others may be hard. Just do the best you can. There is no credit for answering quickly - it is more important to answer the item correctly, but it is okay if you do not know the answer because some of the items are intended to be very difficult. You can go on to the next item at any time. Are you ready to begin?

{INTERVIEWER: Make sure R has pencil and paper ready for writing down the numbers. Clarify instructions for the R if necessary. Do not provide further prompts, and do not give the correct answer or tell the respondent if his or her answer is correct. Permit as much time as R wishes for each question. If the R has not given an answer after about a minute ask Would you just like to go on to the next question?}

Q20 (a)

Please write down the following numbers: 3 . . . BLANK . . . 8 . . . 12 . . . 17

Now look at the numbers that you just wrote down and tell me the number that belongs in the blank.

INTERVIEWER CODE:

1. Correct answer given (5)
2. Incorrect answer
3. DON'T KNOW
4. REFUSED

(b)
Next, please write down the following numbers: 18 . . . 10 . . . 6. . . BLANK . . . 3

(Now look at the numbers that you just wrote down and tell me the number that belongs in the blank.)

INTERVIEWER CODE:

1. Correct answer given (4)
2. Incorrect answer
3. DON'T KNOW
4. REFUSED

(c)
Next, please write down the following numbers: 17 . . . BLANK . . . 12 . . . 8

(Now look at the numbers that you just wrote down and tell me the number that belongs in the blank.)

INTERVIEWER CODE:

1. Correct answer given (15)
2. Incorrect answer
3. DON'T KNOW
4. REFUSED

NUMBER SERIES TASK (Q20)

OBSERVATIONS

- Does the respondent demonstrate any irritation/ distress at being asked to do this task?
- Did the respondent ask for clarification about the task during the introduction? What clarifications did they ask for?

PROBES

- How did you feel about being asked to do this task?
- How easy or difficult did you find this task? Why? Explore whether difficulty arose due to difficulties in numeracy OR misunderstanding the question or language barriers?
- How useful was the example given to helping you understand the task?
- Could the instructions at the start of the task be made clearer or are they clear enough already?
- Did you feel you had enough time to do this task?

{ASK ALL}

FAS TASK:

Q21

Next, I am going to say a letter of the alphabet, and I want you to say as quickly as you can all of the words that you can think of that begin with that letter. For instance, if I say 'B', you might give me 'bad, battle, bed' and so forth. You may say any word at all except proper names of people or places, like 'Barbara' or 'Boston'. Also, do not use the same words again with a different ending, such as 'bake' and 'baking'. Often people think of a few words and then draw a blank. If this happens, just keep trying. You will have only one minute to do this, so please do not use your time to make other comments to me. Keep

trying to think of words until the minute is up. Is this clear? *[IF 'NO' OR OTHER QUERY, PLEASE ONLY RE-READ FROM THE TEXT PROVIDED. OTHERWISE, CONTINUE]*

INTERVIEWER: PLEASE ALTERNATE THE LETTERS FOR EACH INTERVIEW. I.E. USE LETTER F FOR RESPONDENT 1 AND LETTER A FOR RESPONDENT 2 ETC.

Now, think of words that begin with the letter **F as in Frank.** Start now.
Now, think of words that begin with the letter **A as in Adam**. Start now.
Now, think of words that begin with the letter **S as in Sarah.** Start now.

INTERVIEWER INSTRUCTIONS

- *Begin timing when the respondent says the first correct word*
- *Encourage respondent to keep trying for the entire minute. If respondent says 'I can't think of any more' offer supportive but brief advice such as 'just keep trying' or 'you can do it' or 'keep going'.*
- *Write down the actual words in the order in which they are produced in the space below.*
- *Make plus-signs '+' for correct answers or minus-signs '--' for incorrect answers if the responses are too rapid to be recorded verbatim.*
- *If repetitions occur that may be accepted if an alternate meaning was intended by the respondent (e.g., 'four' and 'for', 'son' and 'sun'), then ask what was meant by this word at the end of the 1-minute period*
- *Stop writing when 1-minute period has ended.*
- *Tally the number of correct / incorrect responses*

ENTER NUMBER OF CORRECT RESPONSES

ENTER NUMBER OF INCORRECT RESPONSES

FAS TASK (Q21)

OBSERVATIONS

- Does the respondent demonstrate any irritation/ distress doing this task?
- Did the respondent ask for clarification about the task during the introduction? What clarifications did they ask for?

PROBES

- How did you feel about being asked to do this task?
- How easy or difficult did you find this task? Why? Explore whether difficulty arose due to difficulties in numeracy OR misunderstanding the question or language barriers.
- How useful was the example given to helping you understand the task?
- Could the instructions at the start of the task be made clearer or are they clear enough already?

{ASK ALL}

Immediate Word Recall Task:

Q22

I'll read a set of 10 words and ask you to recall as many as you can. We have purposely made the list long so that it will be difficult for anyone to recall all the words, most people recall just a few. Please listen carefully as I read the set of words because I cannot repeat them. When I finish, I will ask you to recall aloud as many of the words as you can, in any order. Is this clear?

[IF 'NO' OR OTHER QUERY, PLEASE ONLY RE-READ FROM THE TEXT PROVIDED. OTHERWISE, CONTINUE]

INTERVIEWER INSTRUCTIONS:

- *Only read out ONE list to the respondent – see instruction below.*
- *Read the items at a slow, steady rate- approximately one word every two seconds.*
- *Check-off the words remembered.*
- *Permit as much time as R wishes (up to about 2 minutes).*
- *Probe after the Delayed Word Recall task (end of test questionnaire)*

INTERVIEWER: PLEASE ALTERNATE THE LISTS FOR EACH INTERVIEW. I.E. USE LIST 1 FOR RESPONDENT 1 AND LIST 2 FOR RESPONDENT 2 ETC.

LIST 1

1. HOTEL
2. RIVER
3. TREE
4. SKIN
5. GOLD
6. MARKET
7. PAPER
8. CHILD
9. KING
10. BOOK

Now please tell me the words you can recall

LIST 2

1. SKY
2. OCEAN
3. FLAG
4. DOLLAR
5. WIFE
6. MACHINE
7. HOME
8. EARTH
9. COLLEGE
10. BUTTER

Now please tell me the words you can recall

LIST 3

1. WOMAN
2. ROCK
3. BLOOD
4. CORNER
5. SHOES
6. LETTER
7. GIRL
8. HOUSE
9. VALLEY
10. ENGINE

Now please tell me the words you can recall

LIST 4

1. WATER
2. CHURCH
3. DOCTOR
4. PALACE
5. FIRE
6. GARDEN
7. SEA
8. VILLAGE
9. BABY
10. TABLE

Now please tell me the words you can recall

{ASK ONLY IF R IS AGED 60 OR OVER – A1=3}

Orientation to time task

Q23 INTRO.

READ OUT: "We're interested in how memory actually works. We find that even people with very good memories seem to forget some things from time to time. The next questions are a little different, but are often asked on studies about memory".

{ASK ONLY IF R IS AGED 60 OR OVER – A1=3}

Q23

Please tell me today's date.

ENTER Respondents answer;
Indicate if it is correct or incorrect

{ASK ONLY IF R IS AGED 60 OR OVER – A1=3}

Q23

What day of the week is it?

ENTER Respondents answer;
Indicate if it is correct or incorrect

TIME ORIENTATION TASKS (Q23)

OBSERVATIONS

- Does the respondent demonstrate any irritation/ distress doing these tasks?
- Did the respondent ask for clarification about the task during the introduction or at a later stage? What clarifications did they ask for?

Probes

- How did you feel being asked to give today's date?
- How did you feel being asked to give today's day of the week?

Q24 CLIPTASKB:

{DO TO ALL- Hand respondent clipboard}

READ OUT: "These are for you". *{Pause for exactly 5 seconds}*

{IF NO RESPONSE prompt:}

"You were going to do something when I gave you the clipboard and pencil. Can you remember what it was?"

{IF respondent says 'Am I supposed to....?' prompt:}

"Do whatever you think you are supposed to".

INTERVIEWER: CODE WHETHER OR NOT YOU PROMPTED RESPONDENT.

3. Prompt given
4. No prompt given
5.

INTERVIEWER: RECOVER CLIPBOARD FROM RESPONDENT AND RECORD WHETHER TASK COMPLETED SUCCESSFULLY

5. Wrote initials in top left-hand corner
6. Wrote initials somewhere else on paper
7. Wrote something else in top left-hand corner
8. Did something else

CLIPTASK (Q24)

PROBES

- How did you decide what to do when I gave you the clipboard?
- How did you feel about being asked to do this task?
- {If R did not write initials on top left-hand corner} explore reasons for not doing so; is this an issue related to memory OR is it due to not understanding the instructions (does R understand 'initials.' Can R show you left and right?)

{ASK ALL}

Numerical Ability Items

Q25 INTRO:

Next I would like to ask you some questions which assess how people use numbers in everyday life.

Q25

In a sale, a shop is selling all items at half price. Before the sale, a sofa costs £300. How much will it cost in the sale?

4. £150 (correct answer)
5. Wrong Answer
6. DON'T KNOW/ REFUSAL

{ASK ALL}

Q26

If the chance of getting a disease is 10 percent, how many people out of 1,000 (one thousand) would be expected to get the disease?

4. 100 (correct answer)
5. Wrong Answer
6. DON'T KNOW/ REFUSAL

{ASK ALL}

Q27

A second hand car dealer is selling a car for £6,000. This is two thirds of what it cost new. How much did the car cost new?

4. £9,000 (correct answer)
5. 2Wrong Answer
6. DON'T KNOW/ REFUSAL

INTERVIEWER CHECK:

IF respondents got all Q25-27 incorrect→ ASK Q28

IF respondents get any of Q25-27 correct→ ASK Q29

IF respondent get Q29 correct → ASK Q30

{ASK IF respondent responded incorrectly on all three previous questions}

Q28

If you buy a drink for 85 pence and pay with a one pound coin, how much change should you get back?

4. 15 pence (correct answer)
5. Wrong Answer
6. DON'T KNOW/ REFUSAL

{ASK IF respondent responded correctly on any of three previous questions}

Q29

If 5 people all have the winning numbers in the lottery and the prize is £2 million, how much will each of them get?

4. £400,000 (correct answer) → ASK Q30
5. Wrong Answer
6. DON'T KNOW/ REFUSAL

{ASK IF respondent responded answered Q29 correctly}

Q30

Let's say you have £200 in a savings account. The account earns ten percent interest each year. How much would you have in the account at the end of two years?

4. £242 (correct answer)
5. Wrong Answer
6. 8. DON'T KNOW/ REFUSAL

NUMERICAL ABILITY TASKS (Q25 – Q30)

OBSERVATIONS

- Does respondent demonstrate any irritation/ distress doing this task?
- Does respondent ask for clarification on what to do?
- Does respondent change their answers at any point?
- Is there any evidence of difficulty experienced by the respondent as a result of the content of the examples (for example lotteries, buying a drink or interest) because of their cultural background?

PROBES

- How did you go about answering these questions? Explore whether respondent is confident in their answers or whether they just guessed an answer.
- How easy or difficult did you find this task? Why? Explore whether difficulty arose due to difficulties in numeracy OR misunderstanding the question or language barriers?
- What did understand by the term 'percent'?
- (If Q30 asked) What did you understand by the term 'interest'?
- Did you feel you had enough time to do this task?

{ASK ALL}

Q31 Delayed Word Recall Task:

Now please tell me the words you can recall from the list of ten words I read out to you earlier.

WRITE IN ITEMS RECALLED BELOW:

_____

_____

_____

_____

WORD RECALL TASKS (Q22 AND Q31)

OBSERVATIONS

- Does the respondent demonstrate any irritation/ distress doing these tasks?
- Did the respondent ask for clarification about the task during the introduction or at a later stage? What clarifications did they ask for?

PROBES

WORD RECALL TASKS (Q22 AND Q31)

- How easy or difficult for you to remember the list of words the first time I asked? Why?
- How easy or difficult was it for you to remember the list of words the second time I asked? Why?

PROBES CONTINUE ONTO NEXT PAGE…

- Explore whether difficulties arose due to difficulties in numeracy OR misunderstanding the question or language barriers.
- Could the instructions at the start of the task be made clearer or are they clear enough already?
- How did you feel about being asked the list recall task?
- Did you feel you had enough time to learn the words? Why/ Why not?

General Issues

INTERVIEWER: Explain that the respondent has now completed the survey questions and you would now like to ask them some general questions about all the tasks they have just completed.

GENERAL PROBES

- Have you ever done any tasks like this before? If Yes- Explore in detail.
- What do you think the purpose of these tasks is?
- Some of the tasks were deigned to be difficult. How did you feel doing the more difficult tasks? If respondent gives negative feedback about task- what could have been done to make you feel better about completing these tasks?
- Do you think everybody will be comfortable answering these questions? If no- how can we make sure everyone is comfortable answering these questions.
- (IF RESPONDENT RECRUITED AS NON-NATIVE ENGLISH SPEAKER) When we arranged this interview, you told me that English is <u>not</u> the language you always speak at home. Did you have any difficulty doing the tasks because English is not your first language? If Yes- Explore in detail.

THANK YOUR RESPONDENT AND ALLOW TIME FOR THEM TO 'COME OUT' OF THE INTERVIEW BEFORE YOU LEAVE THEM.
ANSWER ANY QUESTIONS THEY MAY HAVE.

Appendix C: Door Step Screening Protocol

Introductions and Recruitment Conversation

Introduce yourself

- **Name**
- **National Centre for Social Research**. We are an independent research institute.
- Your name or address has not been selected; we simply called at your house at random.

Why we are calling

- Calling to tell you about a new research study NatCen is carrying out.
- NatCen is one of the organisations involved in running *Understanding Society*, an ongoing social research project funded by the Economic and Social Research Council.
- *Understanding Society* is the largest social research project of its kind in the world and looks at a variety of topics. It is now in its third year and we are looking to add some new questions to it.
- Before the new questions are added to *Understanding Society* we are looking for a small number of people to try the new questions out on. It is important that we test new questions to make sure that everyone understands them before they are asked to thousands of people.

Practicalities

- Taking part would involve doing an interview in which you would be asked answer the new survey questions and give your opinions on them. You may skip any questions you don't wish to answer and you may drop out at any time.
- The interview lasts approximately **one hour**. It would take place **at your home**, or at another venue that is convenient to you. (If appropriate- You would be welcome to have somebody with you during that interview).
- Everyone who is interviewed will receive a **£20 high street voucher** as a thank you.
- This research will be written up as a report, but you will not be identified in it and what you say will not be linked with your name and address. Everything that you say in the interview will be treated in **strict confidence**.

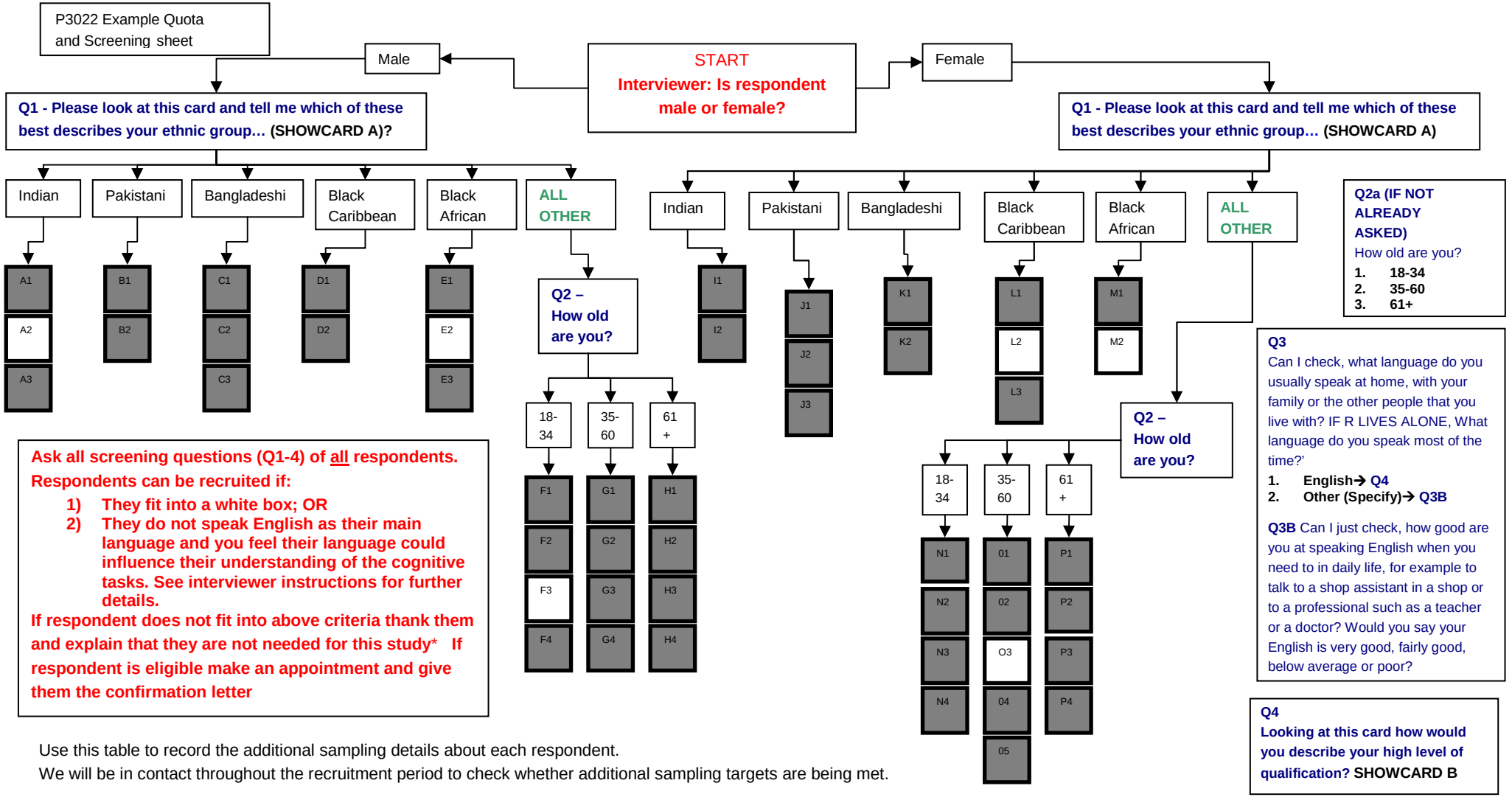
Taking part

- Participation is entirely **voluntary,** which means we rely on the good will of people to take part so that we achieve a good representation of people.
- **Would you like to take part?**

Screening

- **Before proceeding, can I just check some information with you…** We are trying to get a spread of different people for this study so I'd just like to run through a few questions with you to see whether you match our criteria…

NOW PLEASE REFER TO THE SCREENING AND QUOTA SHEET



Use this table to record the additional sampling details about each respondent.
We will be in contact throughout the recruitment period to check whether additional sampling targets are being met.

Cell Reference (e.g. A1)										**TARGET**
Q1 Ethnicity (ALL OTHER ONLY)										Monitoring Purposes only
Q2 Age Group										Monitoring Purposes only
Q3 Main language										AT LEAST 2 who do not speak English as their main language
Q4 Educational Attainment										Monitoring Purposes only

SHOWCARD A

White

1. British
2. Any other white background

Mixed

3. White and Black Caribbean
4. White and Black African
5. White and Asian
6. Any other mixed background

Asian or Asian British

7. Indian
8. Pakistani
9. Bangladeshi
10. Any other Asian background

Black or Black British

11. Caribbean
12. African
13. Any other Black background

Other

14. Chinese
15. Any other ethnic group

SHOWCARD B

1. Postgraduate Degree

2. Degree

3. Higher Education below degree level

4. A-Level or equivalent

5. O Level/ GSCE or equivalent

6. CSE or equivalent

7. Other qualification/ Foreign qualification

8. No qualifications