## Scotland's Census 2021 <br> Language Topic Report

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## 1. Main Points

- Questions on Scottish Gaelic language have been included in Scotland's Census since 1881. In 2011 the language question set was updated to also ask about English and Scots language skills as well as language other than English used at home.
- There is strong user need for a language question set that can produce good quality data and meets user needs for English, Scottish Gaelic and Scots language skills; British Sign Language (BSL) use; and Main language.
- Information on language is required to meet a number of different needs, including equality monitoring, service planning and provision, resource allocation, and to meet legislative requirements.
- A need for information on BSL, in addition to use 'at home' was identified.
- In the Topic Consultation Report (PDF) NRS proposed to continue to collect information on Gaelic, Scots and English language as well as other languages in 2021. NRS proposed to review user need and the detail of the information collected in view of concerns around data quality.
- NRS proposed consider what information on BSL use was required and so developed and tested a new question on BSL use.
- Evidence from testing shows separate questions for English language, Scottish Gaelic, and Scots language improved data quality.
- Evidence shows a combined English language proficiency and skills question gathered good quality data.
- NRS tested a 'Main language' question against the 2011 'Language other than English used at home' question. In general these questions performed equally well in initial testing and the Main language question was taken forward to further testing with a view to being able to produce harmonised UK outputs.
- Research and analysis support taking the following language questions further at this stage:
- English language skills by proficiency
- Scottish Gaelic and Scots language skills
- British Sign Language
- Main language
- The digital first approach for 2021 requires further development and user testing to fully understand the best way to present the questions online to maximise response, minimise respondent burden and ensure good quality data which meets user needs. An on-going programme of question development, focusing on sensitive or complex questions will further inform the specific question wording.


## 2. Introduction

This topic review sets out the evidence gathered in developing a language question set for Scotland's Census 2021.

Question development for the 2021 Census began in 2015. An iterative and comprehensive process of user consultation, evaluation and prioritisation of user requirements, and qualitative and quantitative question testing has been carried out to inform decisions on the questions to be recommended for inclusion in the 2021 Census. More information about research and preparation and question development for Scotland's Census 2021 can be found online.
The 2021 Census will be digital first. The Census 2021 questionnaire must gather high quality data that meets user needs. More information about key elements of the design for 2021 can be found online.
Two frameworks have been published by National Records of Scotland (NRS) to evaluate the effectiveness of question design for existing, alternative and new questions (PDF) and to evaluate the effectiveness of question design of tick box response options (PDF).
Questions and their response options are evaluated against five main themes:

## Strength of user need

$\checkmark$ Data collected by the census must meet a user need for equality monitoring, policy development, resource allocation and/or service planning and delivery.

## Suitability of alternative sources

$\checkmark$ Data collected by the census must meet a user need that cannot be met elsewhere.

## Acceptability, clarity and data quality

$\checkmark$ Questions asked in the census must be acceptable to the majority of the public, clear and be designed with minimal respondent burden in order to obtain good data quality that meets user needs.

## Comparability

$\checkmark$ Data collected by the census should be comparable over time where possible, and harmonised across the UK where reasonable.

## Operational considerations

$\checkmark$ Census questions must be considered as part of the census as a whole, where effective digital and paper design, space and financial constraints must be considered. Additionally, some questions may be required for operational purposes in the process of conducting the census.

The final decision on the content of Scotland's Census 2021 questionnaire will ultimately be made by the Scottish Parliament.

As in previous years, there will be separate censuses conducted by the Office for National Statistics (ONS) in England and Wales, and the Northern Ireland Statistics and Research Agency (NISRA) in Northern Ireland. The three census offices work together to develop a set of questions that, wherever possible and necessary, will deliver harmonised outputs across the UK.

## 3. Background

Language information is used by local government and public bodies to inform resource allocation, target services, meet legislative requirements ${ }^{1}$ and assess education demands. It is also used by third sector and equality organisations in research and related policy development and to inform community cohesion work.

### 3.1 Previous Scotland's Census Language Questions

The Scotland's Census 2001 language section only asked whether people could understand, speak, read or write Scottish Gaelic.
In 2011, new questions were included to gather data on:

- English language skills (understand, speak, read, write);
- Scots language skills (understand, speak, read, write);
- Proficiency in spoken English; and
- Language other than English used at home.

Figures 1 and 2 Scotland's Census 2001 and 2011 Language Question Sets

16 Can you understand, speak, read, or write Scottish Gaelic?
all the boxes that apply.Understand spoken Gaelic
Speak GaelicRead GaelicWrite Gaelic
None of these


The language question set is deemed to be broadly comparable between 2001 and 2011. The 2011 question on Scottish Gaelic is similar to the 2001 question, with the main content change being that the wording 'Understand spoken [Gaelic]' was amended to 'Understand'. Further information on comparability between the 2001 and 2011 questions can be found in a Comparability Report (PDF) on the Scotland's Census website. More information about changes for 2011 can be found online.

[^0]
### 3.22011 Data Quality

The metadata for English language skills data from Scotland's Census 2011 states that there is evidence that the 2011 census data is not accurate for English language skills. This was identified as there were a considerable number of people who reported having no skills in English but also reported full proficiency in Scots.
Furthermore, a large number of respondents who did not tick the box indicating that they were able to speak English reported in the next question that they spoke English very well or well.
These issues were also present in question testing conducted in 2009. ${ }^{2}$
For 2011 census outputs, the decision was made to combine the tick box responses for English and Scots. Published tables on English language skills are actually English and/or Scots language skills to account for this issue.
Some users have expressed concern about the usability of the data on Scots language skills, given the known varying interpretations of what is meant by 'Scots'. This was also picked up on through the 2017 cognitive and quantitative testing, discussed in Section 5, with respondents having interpretations of 'Scots' ranging from the version of English spoken by Scottish people, to a dialect spoken in particular parts of Scotland, or an old language that is rarely spoken now.
The Census Quality Survey (CQS) ${ }^{3}$ agreement rates are an indicator of quality for Scotland's Census 2011 questions. They can be found in Chapter 9 of the 2011 General Report. The rates for the language questions are shown below in Table 1.

Table 1. Scotland's Census 2011 Census Quality Survey agreement rates

| Scotland's Census 2011 Question | CQS Agreement Rate (\%) |
| :--- | ---: |
| Q16. English language skills | 95.0 |
| Q16. Scottish Gaelic language skills | 99.5 |
| Q16. Scots language skills | 88.5 |
| Q16. Full language skills matrix | 84.6 |
| Q17. Proficiency of spoken English | 96.8 |
| Q18. Language other than English used at home | 98.3 |

Scots language had the lowest agreement rate within the language question set. The most common difference between the census and the CQS for this question was for a respondent to report full ability in Scots on the census but no ability on the CQS.

[^1]${ }^{3}$ The CQS was a voluntary survey carried out after the census to measure the accuracy of responses in the census. The survey asked a sample of the population the same questions as were asked in the census. Answers between the census and the CQS were compared and where responses differed, follow-up questions were asked of the respondents to determine why this was. Agreement rates were calculated for each question: the percentage of CQS respondents that gave the same response to the census and the CQS question.

### 3.3 Language Questions in other UK 2011 censuses

The questions asked by the ONS (in England and Wales) and NISRA (in Northern Ireland) are shown in Figures 3 and 4 below.
Figure 3. ONS (left) and NISRA (right) Language Question Set 2011


The question on Welsh language skills (ONS Q17) was only asked in Wales and the space was intentionally left blank in England.
The question on English, Scottish Gaelic, and Scots language skills was only asked in Scotland, so no UK comparison can be drawn. This is similar for the questions on Welsh language skills (Wales only), and Irish and Ulster-Scots ability (Northern Ireland only).
All four countries asked about proficiency in spoken English. In England, Wales, and Northern Ireland this data was only collected of those who had not reported that their main language was English. In Scotland this data was collected of everyone. The population base can be selected such that the UK data on spoken English proficiency is broadly comparable.
In England, Wales, and Northern Ireland respondents were asked about their 'main language', whereas in Scotland they were asked whether or not they used a 'language other than English at home'. While the concepts covered by these questions differ slightly, data collected by these questions are considered broadly comparable due to respondent understanding of the concepts. In Scotland an additional tick box response option was included for 'British Sign Language'. In England, Wales, and Northern Ireland, there was instruction that British or Irish (Northern Ireland only) Sign Language could be included in the write-in box.

### 3.4 Alternative Sources

Since 2012, a set of core questions has been used to provide information on the composition, characteristics and attitudes of Scottish households and adults across a number of topic areas through the three largest surveys in Scotland:

- the Scottish Household Survey (SHS)
- the Scottish Health Survey (SHeS)
- the Scottish Crime and Justice Survey (SCJS)

A set of core and harmonised questions is recommended in order to provide comparable estimates across Scotland. More information can be found on the Scottish Government website (Core Survey Questions).

Language is not covered by the Core and Harmonised Survey Questions and is not collected in any of the social surveys mentioned above.
The Labour Force Survey (LFS) asks questions on English language, including one which asks respondents to say whether they would describe their spoken English as 'Mother tongue', 'Advanced', 'Intermediate', or 'Beginner or less'. It also asks 'What is your first language at home?' and gives five response options: English, Welsh, Gaelic, Ulster Scots/Ullans, and Other.

## 4. Understanding user need

### 4.1 Topic Consultation

NRS invited views on Scotland's Census 2021 - Topic Consultation (PDF) between 8 October 2015 and 15 January 2016. The consultation was a key step towards understanding what information users will need from the census in 2021, and helped to build strong cases to justify the inclusion of topics. The focus of the consultation was on information required at topic-level, not the detail of the questions that should be asked on the questionnaire.

Following the consultation, NRS worked closely with stakeholders through follow-up events, meetings, focus groups and online surveys to gather more detailed information about data requirements to ensure user needs were understood. Information about these events can be found on our Get Involved pages online.
There were 38 responses received through the topic consultation on the subject of language. A summary of these responses can be found in the Topic Consultation Report (PDF).
Stakeholders identified the following reasons for requiring information on language:

- meeting legislative requirements ${ }^{4}$ and developing policy
- assessing educational demand
- planning and delivering service and allocating resources
- equality monitoring
- area profiling
- research and analysis

[^2]In the Topic Consultation Report, NRS proposed to continue to collect information on English, Scottish Gaelic, and Scots language skills and other language in 2021. NRS proposed to consider what detail was needed for English and Scots language and to review the information collected on other language.
In particular a need for information on British Sign Language (BSL) use was identified. Information on BSL use has been heavily used for policy development, monitoring and legislative work. The BSL (Scotland) Act 2015 received Royal Assent on 22 October 2015 and in accordance with this, the Scottish Government published its first British Sign Language (BSL) National Plan 2017 to 2023. The National Plan identifies a need to have a more accurate profile of Scotland's BSL Users. To meet this need, question development of a BSL use question has been undertaken.

### 4.2 Further Stakeholder Engagement

As follow-up to the Topic Consultation, an Ethnicity, National Identity, Language and Religion Topic Event was held on 20 April 2017, to conduct further discussion with stakeholders on their needs from these topics.
A summary of this event is available on the Scotland's Census website.
At this event NRS presented alternative questions which aimed to address the quality issues identified in the 2011 data (as discussed in section 3.2 above).
Changes included splitting English language skills into a separate question from Scottish Gaelic and Scots language skills, which the stakeholders present supported.

### 4.2.1 English language skills

Discussion was facilitated to gather information on what detail is needed on English language. Stakeholders identified that the proficiency of each of the four skills would be more useful than the information that had previously been collected.

### 4.2.2 Scottish Gaelic and Scots language skills

The key user need for Scottish Gaelic and Scots language skills remains the same as it was for 2011. There were requests for proficiency in skills to be collected for Scots, Gaelic, and other languages, but the identified user need was low.

### 4.2.3 British Sign Language (BSL)

Stakeholders presented a clear need to know whether an individual could use BSL. There was discussion around whether the equivalent skills should be collected for BSL as are collected for Scottish Gaelic and Scots. The reasons given for collecting these skills were due to equivalence between the questions, rather than a data need.
Stakeholders indicated that there was no user need for collecting data on 'why' people use BSL. Stakeholders commented that information on deafness and partial hearing loss is collected in the health topic in the census, and confirmed that this is where this data should continue to be collected.
There was some appetite for collection of data on which level of BSL individuals can use. However, user need identified was low.

### 4.2.4 Other language

A strong user need was identified for information to support service provision for individuals who need services to be provided in languages other than English.
Some stakeholders stated that they would be interested in obtaining a full list of languages an individual could use and suggested that there may be value in asking respondents to list all the languages used in the home by frequency. However, a user need identified for this was low.
Stakeholders expressed that the wording of this question (i.e. whether it asks about 'language used at home', 'first language', 'main language', or uses other terminology) depends on what the purpose of asking the question is. As the stronger need was laid out for data to support service provision, it is important that this question collect only one language, for services to be provided in where English is not suitable.

It was noted that using the 'main language' terminology would align the question with the one asked in England, Wales, and Northern Ireland.

## 5. Question testing

This section provides evidence from the question testing process carried out by National Records of Scotland (NRS) in the question development process for Scotland's Census 2021.
Both cognitive testing and quantitative testing processes were used in developing the questions for potential inclusion in Scotland's Census 2021.

1. Cognitive testing is a form of in depth interviewing with a small number of respondents. It aims to provide an insight into the mental processes respondents use when answering questions. This helps us to identify if there are any problems with a question or question design and gain an insight into the source of any difficulty respondents are having.
2. Quantitative testing is undertaken primarily to identify data quality concerns. NRS conducted a quantitative test in 2017 which included feedback questions in order to gather further information on public acceptability and to identify specific difficulties respondents faced if they were unable to answer a question easily.
In 2017 NRS commissioned ScotCen Social Research to conduct cognitive and quantitative testing of selected questions for potential inclusion in Scotland's Census 2021. Information about this testing can be found in the 2017 Cognitive and Quantitative Testing Report (PDF).

### 5.1 Cognitive testing

For the language questions, two stages of cognitive testing were carried out.
As the sample in the general population cognitive testing did not include any British Sign Language (BSL) users, further cognitive testing was conducted in 2018, specifically with this group. The background and methodology for this testing can be found in Annex A.
Both instances of cognitive testing described above included the questions on language; images of the questions used in the BSL follow up testing are in Annex B.
A number of versions of the language questions were tested as part of the 2017 cognitive testing, including paper and online versions. The questions along with the key research aims are described below.

### 5.1.1 English language

A question set separating collection of data on English language from collection of data on Scottish Gaelic and Scots language was tested, with the aim of improving data quality and reducing respondent burden.

Three sets of questions about English language were tested. Due to the user needs identified, all of these versions aimed to gather information on proficiency in each English language skill (understanding, speaking, reading and writing).
Online version one asked four individual questions with one shown on each screen, online version two asked these four individual questions on one screen, and the paper version showed a grid style question. The questions tested are shown below.

## Aims of testing:

- Establish whether each question should be shown on a separate screen or whether all four questions should be shown on one screen online;
- Explore whether respondents are able to answer using the grid based design on paper; and
- Explore whether respondents preferred the grid based design or the individual-question design.

General population online version one: 4 individual questions on separate screens.

Q11A. How well can you understand/speak/read/write English?
i. How well can you understand English?

Select one only.

O Very well

- Well
- Not well
- Not at all

Q11A. How well can you understand/speak/read/write English?
ii. How well can you speak English?

Select one only
O Very well

- Well

Not well
O Not at all

Q11A. How well can you understand/speak/read/write English?
iii. How well can you read English?

Select one only

O Very well
O Well

- Not well
- Not at all

Q11A. How well can you understand/speak/read/write English?
iv. How well can you write English?

Select one only.

- Very well
- Well
- Not well
- Not at all

General population online version two: 4 individual questions on one screen.

```
Q11B. How well can you understand/speak/read/write English?
```

There are more choices than can be seen on the screen - please scroll down to see them all.
i. How well can you understand English?

Select one only

- Very well

O Well

- Not well
- Not at all
ii. How well can you speak English?

Select one only

O Very well

- Well
- Not well
- Not at all
iii. How well can you read English?

Select one only.

General population paper version: grid based design

## 11 How well can you understand/speak/read/write English?

- Tick one box in each column


As an alternative to asking about the proficiency of each English language skill, a version of English language questions was tested which included two questions, one about English language skills only and one about proficiency of spoken English only. These questions were shown on separate screens.
The aim of testing these questions was to see whether respondents found the separate questions easier to answer than the previous questions which combined skills and proficiency.

General population online version three: skills separately from proficiency

Q11Ci. Can you understand/speak/read/write English?

Select all that apply.
$\square$ Understand spoken English
$\square$ Speak English
$\square$ Read English
$\square$ Write English
$\square \quad$ None of the above

## Q11Cii. How well can you speak English?

O Very well

- Well
- Not well
- Not at all

Two paper versions of the latter question on spoken English proficiency were shown to respondents, to test whether a vertical or horizontal list worked better.

General population paper version two: horizontal proficiency only question

How well can you speak English?

- Tick one box

Very well Well Not well Not at all

General population paper version three: vertical proficiency only question

## 11 How well can you speak English?

- Tick one boxVery wellWellNot wellNot at all

In the testing with BSL users, a slightly amended version of the grid based (paper) question was shown to respondents. This can be seen in Annex B.

The aims of testing this question with BSL users were the same as for the general population testing.

The results below summarise the findings for the general population testing and the BSL users testing.

## Key results:

- The questions which combined language skills and proficiency were well understood by all members of the cognitive sample and some found these questions easier than the alternative version which asked about skills and proficiency separately.
- All respondents gave identical answers to both the online versions and no consensus was reached on preference between the two versions.
- There was a suggestion that only the key word in each question ('understand', 'speak', 'read', and 'write') could be made bold to make it easier to see the difference between each question.
- Respondents had mixed views on the grid based (paper) version of the question and there were some data quality issues (non-response) for the grid based question. No consensus was reached on respondent preference between the grid based format and non-grid based format.
- Respondents could answer the spoken proficiency only question equally well vertically and horizontally, and there was no evidence of this element of design impacting on responses given.
- In all versions, there were different interpretations of whether the 'understand' skill referred to understanding spoken English, or understanding the language generally. This was particularly apparent in the follow up testing with BSL users.


### 5.1.2 Scottish Gaelic and Scots language

A question set separating collection of data on Scottish Gaelic and Scots language from collection of data on English language, with the aim of improving data quality and reducing respondent burden was tested.

Two versions of questions about Scottish Gaelic and Scots language were tested, one online and the second on paper. The online version showed two individual questions (one on Scottish Gaelic and one on Scots language) on separate screens. Respondents were asked to comment on whether they thought that these questions should be shown on one screen or two. The paper version was a grid based design similar to the Scotland's Census 2011 design but with English language removed and with the axes of the grid switched. The questions tested are shown below.

## Aims of testing:

- Explore understanding of the question (e.g. whether respondents understand the terms 'Scottish Gaelic' and 'Scots language');
- Explore whether respondents are able to answer using both the online format and the paper grid based format, and which format is clearer; and
- Explore whether respondents preferred the online questions to be shown on one screen or two.

General population online version: two individual questions on separate screens.

Q12. Can you understand/speak/read/write Scottish Gaelic?
Select all that apply.

Understand Scottish Gaelic
$\square$ Speak Scottish Gaelic
$\square$ Read Scottish Gaelic
$\square$ Write Scottish Gaelic
$\square \quad$ None of the above

Q13. Can you understand/speak/read/write Scots language?
Select all that apply.
v Understand Scots Language
$\square$ Speak Scots Language
$\square$ Read Scots Language
$\square$ Write Scots Language
$\square \quad$ None of the above

General population paper version: grid based design


## Sampling Note:

No respondents in the cognitive sample reported that they had any skills in Scottish Gaelic. Five respondents stated that they had some ability in Scots language at some point during the testing. However, there was evidence that respondents did not have a consistent understanding of what Scots language is and so these questions have not been tested thoroughly with Scottish Gaelic or Scots language users.
A slightly amended version of the grid based (paper) question was shown to respondents in the testing with BSL users. This can be seen in Annex C. The aims of the follow up testing for this question were the same as for the general population testing.

## Key results:

- All respondents understood what was meant by the term 'Scottish Gaelic' despite not reporting any skills in this language. No issues with understanding the question on Scottish Gaelic were detected.
- Respondents had varying understanding of the term 'Scots language' which led to inconsistent responses between different individuals with similar levels of skill in the language.
- In general, respondents gave the same responses to the paper versions of the questions as they did to the online versions of the questions.
- Respondents were clear that, online, both the Scottish Gaelic and Scots language questions should be shown on the same screen.
- Respondents generally thought that including proficiency levels for each skill in the Scottish Gaelic and Scots questions would help them answer.
- As with English language, respondents showed confusion around whether the 'understand' skill referred to understanding spoken English, or understanding the language generally. This was particularly apparent with BSL users.
- BSL users commented that the diagonal text made the question harder to read. They also commented that having the skills aligned with the previous question (on English language) would help them to better understand the question. In the general population testing the questions were not shown together, which may be why this was not raised during the initial testing.


### 5.1.3 British Sign Language (BSL)

Two versions of a question on BSL use were tested. Both of these were online. Version one asked whether or not the respondent could use BSL where version two asked which skills respondents had in BSL. The questions tested are shown below.
Paper versions of these two questions (shown below and in Annex B) were used in the follow up cognitive testing conducted with BSL users. These were shown in the opposite order to the order shown in the general population testing.

## Aims of testing:

- Establish whether respondents understand the terminology used;
- Establish whether or not respondents could easily answer the question correctly, including whether or not the appropriate answer options were available for BSL users;
- Establish whether BSL users felt that the skills 'understand' and 'sign' were independent, or that they one skill implied the other;
- Establish whether BSL users felt it was important to have the skills separated for equivalence with the questions on English, Scottish Gaelic and Scots; and
- Establish whether respondents had a preference for either version.

General population version one: binary (yes/no) response options

Q14A. Can you use British Sign Language?

- Yes
- No

General population version two: individual skills response options

> Q14B. Can you use British Sign Language?

Select all that apply.

Understand
$\square$ Sign
$\square \quad$ No ability

BSL users version one: individual skills response options

Can you use British Sign Language?

- Tick all that apply
$\square$ No ability $\quad \square$ Understand $\quad \square$ Sign

BSL users version two: binary (yes/no) response options

Can you use British Sign Language?
$\square$ Yes $\quad \square$ No

## Key results:

- On the whole, the general population found the question easy to understand. Although some respondents did not know what BSL was they were able to correctly identify they could not use it.
- BSL users generally found the binary (yes/no) version of the question easier to answer. There were some instances of incorrect answers being given in the version with the separate skills, which indicates that this version increases respondent burden for BSL users and therefore may lead to data quality issues.
- BSL users were asked whether they felt that the skills 'understand' and 'sign' were independent, or that one skill implied the other (e.g. if someone can sign, can it be assumed that they can also understand, and vice versa?). There was no consensus on this. Some respondents indicated that they thought this assumption could not be made, whereas other indicated that they thought of the skills as 'a pair', saying that 'they come together'.
- Respondents' opinions were split as to whether they thought it was more important to align with the skills in the other language questions or to have a simpler question. No respondents had a strong view on this and a number said that it would depend on the purpose of collection.
- No consensus was reached on preference between the two versions by either the general population group or the BSL user group.


### 5.1.4 Other language

Two questions on other language were tested in the general population cognitive testing. The first of these asked about 'main language' as ONS and NISRA did in 2011. The second asked 'Do you use a language other than English at home?' as NRS did in 2011. Both versions were online.
A (paper) version of the question on 'main language' (shown below and in Annex B) was used in the follow up cognitive testing conducted with BSL users.

## Aims of testing:

- Explore respondents' understanding of the terminology used;
- Explore which question generates more 'false positives': where respondents report a language (other than English) in which they do not require service provision (or support), including reporting multiple languages; and
- Investigate how BSL users answer these questions.


## General population version one: main language

Q15A. What is your main language?
$\square$ English
$\square$ Other, please enter (including British Sign Language)


## General population version two: home language



## BSL Users version: main language

What is your main language?
$\square$ EnglishOther, please write in (for British Sign Language write "BSL")


## Key results:

- Respondents had varying interpretations of what was meant by 'main language': "language used 'most often'", "mother tongue", "first language learnt" and "language most fluent in" were all used as descriptors.
- Respondents also had varying interpretations of the phrase 'at home'. Some respondents felt that the question was about the language spoken within their household whereas others thought it was about the language they speak in their home country.
- Either of the questions could be used as a measure of the number of people who require support if they are used in conjunction with the question on English language ability.
- Respondents who were fully bilingual, and used their two languages interchangeably in their day-to-day lives, struggled to identify which was their 'main language'.
- Of the six BSL users who self-identified as 'Deaf' or 'Deafblind', five ticked both 'English' and 'Other...'. Of these, two respondents wrote 'BSL', one wrote 'BSL BILINGUALLY', one wrote 'TACTILE BSL'.
- All six of the BSL users who had self-identified as 'Deaf' or 'Deafblind' said that they found this question difficult to answer. Generally these respondents stated that the reason for difficulty was that both English and BSL were their main language: they used both equally every day.


### 5.2 Quantitative testing

The set of language questions that was carried forward to the quantitative testing are shown below.

## Quantitative Test - Paper Version

18 How well can you understand, speak, read and write English?

- Tick one box in each column

|  | Understand | Speak | Read | Write |
| :--- | :---: | :---: | :---: | :---: |
| Very well | $\square$ | $\square$ | $\square$ | $\square$ |
| Well | $\square$ | $\square$ | $\square$ | $\square$ |
| Not well | $\square$ | $\square$ | $\square$ | $\square$ |
| Not at all | $\square$ | $\square$ | $\square$ | $\square$ |

19 Can you understand, speak, read and write Scottish Gaelic or Scots language?

- Tick all that apply


20 Can you use British Sign Language?

- Tick all that apply
$\square$ No ability $\square$ Understand $\square$ Sign
21
What is your main language?
$\square$ English
$\square$ Other, please write in (for British Sign
Language write "BSL")



## Quantitative Test - Online Version

Q18a. How well can you understand English?

* Select one only
. Very well
- Well
- Not well
- Not at all

Q18b. How well can you speak English?

* Select one only

O Very well

- Well
- Not well
- Not at all

Q18c. How well can you read English?

- Select one only
- Very well
- Well
- Not well
- Not at all

Q18d. How well can you write English?

- Select one only
- Very well
- Well
- Not well
- Not at al

4 Previous Stop a Nest question -

Q19a. Can you understand, speak, read and write Scottish Gaelic?

- Select all that applyUnderstand spoken Scottish Gaelic
- Speak Scottish Gaelic
- Read Scottish Gaelic
$\square$ Write Scottish Gaelic
$\square$ None of the above

4 Previous


As well as aims for the individual question within the language set which are laid out later in this document, the testing for all of the language questions had the following aims:

- Look at the distribution of responses, including similarities and difference in distribution compared with Scotland's Census 2011 data; and
- Analyse item non-response rates and invalid responses by mode as a measure of data quality.


### 5.2.1 English language

A question set on English language skills by proficiency was included in the individual section of the 2017 quantitative testing. The questions asked respondents how well they could understand, speak, read, and write English.
The paper version of the question set used a grid based format to ask about proficiency in each of the four skills, while the online version used a separate question for each English language skill. The four questions online were shown on one screen.

For the analysis of the quantitative testing, the four English language skills (understand, speak, read, and write) were treated as separate questions, as this is how they were asked online. For analysis, respondents were classed as having an English language skill if they selected 'very well' or 'well' at the relevant question. This is consistent with the methodology used in the 2011 census and therefore allows for quality checks against existing data sources.

## Specific Aims:

As well as the general aims for all the questions in the language set, the testing of the English language questions aimed to look at the distribution of responses by mode and Scots language skills.

## Key results:

- In total, 95\% of respondents who fully completed the questionnaire gave a valid response to all four English language questions. The remaining 5\% gave an invalid response to at least one of the four English language questions.
- Around $94 \%$ of respondents reported being able to speak English 'very well'. The equivalent values for reporting being able to speak English 'well', 'not well', or 'not at all' were around $5 \%, 1 \%$ and less than $1 \%$, respectively. These results are broadly in line with the Scotland's Census 2011 figures of 89\%, $10 \%, 1 \%$ and less than $1 \%$, respectively.
- Similar patterns were seen amongst the other three English language skills; most respondents reported being able to understand, read or write English (around 99\%, 98\% and 98\% respectively).
- Less than $1 \%$ of respondents reported no English language skills - that is, answered 'not well' or 'not at all' for all English language skills. In Scotland's Census 2011, less than 1\% of people reported having no skills in English.
- Item non-response for understanding English was split fairly evenly across modes. However for the other three skills (speaking, reading, and writing), item non-response was much higher on paper than online. This uneven distribution of item non-response by mode could indicate that respondents experienced an issue with the layout of the question on paper.
- In general, the majority of respondents who reported not having a skill in English, also reported not having the skill in Scots language.
- In total, 71 respondents, who fully completed the questionnaire, provided an invalid response to at least one of the four questions on English language. The majority of these cases were attributable to item non-response.
- Item non-response for the different English language skills ranged from 15 respondents for the 'Understand' skill, to around 60 cases for each of the other three skills.
- There were six cases of invalid multi-ticks, all of which were on paper questionnaires as this type of invalid response was not possible online.
- A feedback question asked "Did you find any of the following questions difficult to answer?". Only $1 \%$ of respondents indicated that they found the English language questions difficult to answer, all of whom gave valid responses to all four questions.


### 5.2.2 Scottish Gaelic

One question on Scottish Gaelic language skills was included in the individual section of the 2017 quantitative testing.
The paper version of the question used a grid based format to ask about Scottish Gaelic and Scots language together, while the online version used a separate question for each language. The two questions online were shown on one screen.

## Specific Aims:

As well as the general aims for all the questions in the language set, the testing of the Scottish Gaelic language skills question aimed to look at the distribution of responses by Scots language skills and main language.

## Key results:

- Around $88 \%$ of respondents who fully completed the questionnaire provided a valid response to the Scottish Gaelic language skills question.
- The most common type of invalid answer was item non-response, with $11 \%$ of respondents who fully completed the questionnaire not providing and answer to this question.
- Less than $1 \%$ of fully completing respondents selected an invalid combination of responses (i.e. reported 'no ability' in Scottish Gaelic but also reported having one of the four Scottish Gaelic skills: understand, speak, read, write). All of these responses were attributable to the paper questionnaire as this type of invalid response was not possible online.
- Of valid responses, $2 \%$ of respondents reported being able to speak Scottish Gaelic. A large majority (96\%) of respondents reported having no ability in Scottish Gaelic. These numbers are similar to those from the 2011 Census where around $1 \%$ of the population reported being able to speak Scottish Gaelic while $98 \%$ reported having no skills in the language.
- Invalid responses were much more prevalent on the paper questionnaire with $11 \%$ of all fully completed paper questionnaires having a non-response for this question. The equivalent figure for the online questionnaire was only $1 \%$.
- Of fully completed questionnaires, the proportion of invalid responses to the Scottish Gaelic language question was highest amongst those aged 55+.
- Of fully completed questionnaires where an invalid response was given to the Scottish Gaelic language skills question (165 responses), 39\% also gave an invalid response to the question on Scots language skills.
- A feedback question asked "Did you find any of the following questions difficult to answer?". Only $1 \%$ of respondents indicated that they found the Scottish Gaelic language question difficult to answer, the majority of whom gave valid responses to all four questions.


### 5.2.3 Scots language

One question on Scots language skills was included in the individual section of the 2017 quantitative testing. The question asked respondents if they could understand, speak, read, and write Scots.
The paper version of the question used a grid based format to ask about Scottish Gaelic and Scots language together, while the online version used a separate question for each language. The two questions online were shown on one screen.

## Specific Aims:

As well as the general aims for all the questions in the language set, the testing of the Scots language question aimed to look at the distribution of responses by main language.

## Key results:

- Overall, $88 \%$ of respondents who fully completed the questionnaire provided a valid response to the Scots language question.
- The most common type of invalid answer was non-response, with $9 \%$ of respondents who completed the full questionnaire not providing an answer to this question.
- Of fully completed questionnaires, around $3 \%$ of respondents selected an invalid combination of responses (i.e. reported 'no ability' in Scots language but also reported having one of the four Scots language skills: understand, speak, read, write). All of these responses were attributable to the paper questionnaire as this type of invalid response was not possible online.
- Of valid responses, $42 \%$ of respondents reported being able to understand Scots language. The equivalent values for speaking, reading and writing Scots language are $26 \%, 30 \%$, and $20 \%$ respectively. Almost half ( $45 \%$ ) of respondents reported having no ability in Scottish Gaelic. In the 2011 Census around $26 \%$ of the population reported being able to speak Scots language while $62 \%$ reported having no skills in the language.
- For the main language question only one respondent wrote 'Scots'. The majority of those reporting Scots language skills reported English to be their main language.
- Invalid responses were much more prevalent on the paper questionnaire with $14 \%$ of all fully completed paper questionnaires having a non-response for this question. The equivalent figure for the online questionnaire was only $2 \%$.
- Of fully completed questionnaires, the proportion of invalid responses to the Scots language question was highest amongst those aged 55+.
- A feedback question asked "Did you find any of the following questions difficult to answer?" Around 5\% of respondents indicated that they found the Scots language question difficult to answer. There was a large number of comments stating that the term 'Scots' was not well defined and that respondents were not sure what it meant.


### 5.2.4 British Sign Language (BSL)

One question on BSL skills was included in the quantitative testing. This was a stand-alone question which asked "Can you use British Sign Language?", with response options to indicate whether respondents could understand and/or sign BSL, or whether they had no ability.

## Specific Aims:

As well as the general aims for all the questions in the language set, the testing of the BSL question aimed to look at the distribution of responses by English language skills and health conditions (deafness or partial hearing loss).

## Key results:

- Overall, $98 \%$ of respondents who fully completed the questionnaire provided a valid response to the BSL questions.
- The most common type of invalid answer was non-response. Of all full completions only $2 \%$ ( 26 cases) were non-response for the BSL question.
- Only one respondent gave an invalid combination - that is, selected 'no ability' in combination with either 'understand' or 'sign'.
- In total, $2 \%$ of respondents said they could both understand and sign BSL. A further $2 \%$ said they could understand BSL but not sign and $1 \%$ said they could sign but not understand BSL. The remaining $96 \%$ said they had no ability in BSL. While the question that gathered BSL use in Scotland's Census 2011 was not directly comparable to the one asked in testing, it can be noted that in 2011 less than $1 \%$ of people reported BSL as their language other than English used at home.
- There were only 11 instances (unweighted) of respondents ticking both 'understands' and 'signs' in combination, while the majority of the population reporting some BSL skills ticked only one of the two skills. This may indicate that respondents missed the guidance to 'select/tick all that apply'.
- The distribution of English language skills amongst those with BSL skills largely reflected the distribution of English language skills of the total sample.
- The large majority of respondents ( $97 \%$ ) who reported being able to understand BSL did not report deafness or partial hearing loss in the longterm health condition question. For those who reported being able to sign BSL: around $21 \%$ reported deafness or partial hearing loss in the long-term health condition question, while the majority ( $79 \%$ ) did not.
- A feedback question asked "Did you find any of the following questions difficult to answer?". Only $1 \%$ of respondents indicated that they found the BSL question difficult to answer, the majority of whom gave valid responses to the question.


### 5.2.5 Main language

The question on other language taken forward to the quantitative testing was the main language question. Respondents were asked to choose either 'English' or 'Other, please write in (for British Sign Language write "BSL")'. ${ }^{5}$

## Specific Aims:

As well as the general aims for all the questions in the language set, the testing of the main language question aimed to look at the distribution of responses by English language skills.

## Key results:

- Overall, $98 \%$ of respondents who fully completed the questionnaire provided a valid response to the main language question.
- Item non-response accounted for $1 \%$ of full completions. Less than $1 \%$ of responses (4 cases) given were invalid combinations - that is, where a respondent selected both response options.
- Of those who provided a valid answer to the main language question, 92\% responded that English was their main language, with 8\% selecting 'other'. While the questions are not directly comparable, these findings are in line with responses to the question on use of a language other than English at home, asked in Scotland's Census 2011. In 2011, 93\% of respondents reported their main language used at home to be English, whilst 7\% reported another language. This would suggest the amended wording does not have a negative impact on respondents' ability to identify the appropriate language.
- A feedback question asked "Did you find any of the following questions difficult to answer?" Only $1 \%$ of respondents indicated that they found the main language question difficult to answer.

[^3]
## 6. Other considerations

## Multilingualism

Some requests were made for multiple languages to be collected, where respondents can use more than one. However, user need identified for this was low.

In March 2018, four UK researchers wrote and published an open letter to the UK Statistics Authority requesting that the UK censuses include a question in 2021 which would allow respondents to report more than one language.
The National Statistician responded to this open letter on behalf of the UK Census jurisdictions. This response was published on the UK Statistics Authority website in April 2018.
The response reiterated the low user need expressed during topic consultations across the UK, for such a question, and noted that the aim of the language questions is to identify people for whom English is not their main language, and their level of proficiency in English.

During the cognitive testing with BSL users, respondents who were bilingual noted that they wanted to be able to record this through the main language question.

As the strongest user need for data collected by this question is to inform service provision in other languages, where English is not suitable, guidance will be produced to instruct bilingual respondents in how to answer.

## 7. Next steps

Research and analysis support taking the following language questions further at this stage:

- English language skills by proficiency,
- Scottish Gaelic and Scots language skills,
- British Sign Language, and
- Main language.

NRS are continuing question development of a full question set for the 2021 Census and will be considering questionnaire design and respondent burden. The final decision on the content of Scotland's Census 2021 questionnaire will ultimately be made by the Scottish Parliament.

The digital first approach for 2021 requires further development and user testing to fully understand the best way to present the questions online to maximise response, minimise respondent burden and ensure good quality data which meets user needs. An on-going programme of question development, focusing on sensitive or complex questions will further inform the specific question wording.
More information about preparation for Scotland's Census 2021 and details about upcoming events can be found on the Scotland's Census website, by subscribing to the Scotland's Census newsletter and following us on Twitter @NatRecordsScot.

## Annex A: Cognitive Testing - Language Questions


#### Abstract

In 2017 NRS commissioned ScotCen Social Research to conduct cognitive and quantitative testing of selected questions for potential inclusion in Scotland's Census 2021. Information about this testing can be found in the 2017 Cognitive and Quantitative Testing Report (PDF).


## 1. Overview of language questions tested

## English language

A question set separating collection of data on English language from collection of data on Scottish Gaelic and Scots language was tested, with the aim of improving data quality and reducing respondent burden.

Three sets of questions about English language were tested. Due to the user needs identified, all of these versions aimed to gather information on proficiency in each English language skill (understanding, speaking, reading, and writing).

Online version one asked four individual questions shown on four screens, online version two asked these four individual questions on one screen, and the paper version showed a grid style question.
An alternative to asking about the proficiency of each English language skill was tested. This was a version included two questions, one about English language skills only and one about proficiency of spoken English only. These questions were shown on separate screens. Two paper versions of the latter question on spoken English proficiency were shown to respondents, to test whether a vertical or horizontal list worked better.

## Scottish Gaelic and Scots language

Two versions of questions about Scottish Gaelic and Scots language skills were tested, one online and the second on paper. The online version showed two individual questions (one on each language) on separate screens. The paper version was a grid based design similar to the Scotland's Census 2011 design but with the English language removed and with the axes of the grid switched.

## British Sign Language (BSL)

Two versions of a question on BSL use were tested. Both of these were online. Version one asked whether or not respondent could use BSL where version two asked which skills respondents had in BSL.

## Other language

Two versions of a question on other language were tested in the general population cognitive testing. The first of these asked about 'main language' as ONS and NISRA did in 2011. The second asked 'Do you use a language other than English at home?' as NRS did in 2011. Both versions were online.

## 2. Summary of key findings

- The questions which combined English language skills and proficiency were well understood by all members of the cognitive sample and some found these question easier than the alternative version which asked about skills and proficiency separately.
- All respondents gave identical answers to both the online versions of the English language questions and no consensus was reached on preference between the two versions.
- No major issues were detected with the respondent understanding of Scottish Gaelic language skills.
- Respondents did not have a consistent understanding of the term 'Scots language.' This led to some missing data and potential overestimation of the number of people who could use Scots language.
- Online, questions on Scottish Gaelic and Scots language skills worked best when shown on same screen.
- There was some evidence the non-grid based formats produced better quality data. This occurred for both the English language skills by proficiency grid and the Scottish Gaelic and Scots language skills questions.
- No major issues were detected with either version of the BSL question tested, although it was suggested that a proficiency rating scale format could be introduced.
- Both questions on other language generated 'false positives' where respondents report a language (other than English) in which they do not require service provision (or support), including reporting multiple languages.
- Either of the questions on other language could be used as a measure of the number of people who require service provision in a language other than English. To do this, the data from the other language question would be combined with earlier questions on English language skills, during analysis.

Full details of the testing and further findings are described in the following sections.

## 3. English language

### 1.1. Questions tested and measurement aims

Separating collection of data on English language from collection of data on Scottish Gaelic and Scots language was tested, with the aim of improving data quality and reducing respondent burden.
Three sets of questions about English language were tested. Due to the user needs identified, all of these versions used combined skills by proficiency questions, aimed to gather information on respondents self-rated proficiency in each English language skill (understanding, speaking, reading, and writing).

Online version one asked four individual questions with one shown on each screen; Online version two asked these four individual questions on one screen; and the paper version showed a grid style question.
The questions tested are shown below.
The aims of testing these questions were to:

- Explore understanding of the questions;
- Establish, for the online versions, whether each question should be shown on a separate screen or whether all four questions should be shown on one screen;
- Explore whether respondents were able to answer using the grid based design on paper; and
- Explore whether respondents preferred the grid based design or the individual-question design.

Findings from all these areas are discussed in the following sections.

## Questions on English language tested

Online version one: 4 individual questions on separate screens.

Q11A. How well can you understand/speak/read/write English?
i. How well can you understand English?

Select one only

O Very well

- Well

Not well

- Not at all

Q11A. How well can you understand/speak/read/write English?
ii. How well can you speak English?

Select one only

O Very well

- Well
- Not well
- Not at all

Q11A. How well can you understand/speak/read/write English?
iii. How well can you read English?

Select one only

O Very well

- Well

Not well
O Not at all

Q11A. How well can you understand/speak/read/write English?
iv. How well can you write English?

Select one only

O Very well
O Well
O Not well

- Not at all

Online version two: 4 individual questions on one screen.

Q11B. How well can you understand/speak/read/write English?
There are more choices than can be seen on the screen - please scroll down to see them all.
i. How well can you understand English?

Select one only

- Very well

O Well

- Not well
- Not at all
ii. How well can you speak English?

Select one only

- Very well
- Well
- Not well
- Not at all
iii. How well can you read English?

Select one only.
[Further Qs and next/ back navigation buttons off screen]

Paper version: grid based design
11 How well can you understand/speak/read/write English?

- Tick one box in each column



### 1.2. Note on sampling

All interviews were conducted in English and while the recruitment focussed on recruiting people who spoke English as a second language, all respondents said they could speak and understand English well. Therefore, it should be noted that these questions have not been tested with respondents with varying ability in English language.

### 1.3. Responses given to the combined skills by proficiency questions

For the first version of the question tested (online version one) all respondents answered that they could understand and speak English 'Very well'.
One respondent answered that they could read English 'Well' and write English 'Not at all.' The respondent described how they had health problems (issues with eyesight, their physical health and their concentration) that affected their ability to read and write. All other respondents answered that they could read and write English 'Very well' at version one of the question.
All respondents gave identical answers to the online versions of the questions.
Two respondents declined to answer the paper question (i.e. the grid format).
One respondent expressed a dislike for the formatting of the question because they felt the layout was too much to take in. This respondent was the same person mentioned above, who described how they struggled with reading and writing due to their health.

The other respondent who expressed a dislike for the grid format did not answer this version as they were confused as how to use the grid based format.

### 1.4. Understanding of the English language proficiency rating scales

In general, all respondents felt these questions were easy to understand in terms of wording. Respondents understood that the questions were about their English language proficiency in each skill.
One respondent also queried whether 'writing' was about 'handwriting skills' or not. However, this did not appear to affect their answers and they selected their response based on literacy rather than hand writing.
One respondent found the questions on reading and writing difficult as they were unsure whether the question was about their literacy skills (whether they knew how to read and write) or their current ability (whether they could physically read and write given their health conditions). They based their answers on their current ability.

### 1.5. Findings on the online version of the question

The online versions always included the following question stem in addition to the individual questions themselves:

## "How well can you understand/speak/read/write English?"

This additional question stem was included to mimic the wording of the question as it appeared on paper (when the grid based format was used).

Online, respondents were shown the above question stem and the following question stems for each of the individual skills:

How well can you understand English?
How well can you speak English?
How well can you read English?
How well can you write English?

Some of the cognitive interviewing respondents spontaneously commented that they did not like use of the slashes and multiple words combined in the first question stem. They felt that this made the question more difficult to read.
Furthermore, some respondents initially misunderstood the first question as being about general English ability because they read the first question stem and not the second. It took these respondents a while to notice the difference between the online questions in version one because the understand/speak/read/write stem was repeated at the top of each screen. It was thought that including this text each time was repetitive and unnecessary.

### 1.6. Findings on online version preference: four screens vs. one screen

Respondents varied as to which online version they preferred and no consensus was reached:

- Some respondents thought online version one was better;
- Some respondents thought online version two was better; and
- Some respondents thought both online formats were easy to answer.

It should be noted no differences were noted between the online versions in terms of data quality. All respondents gave identical answers in both online versions, there was no missing data and no evidence of any incorrect answers.
Respondents who felt online version one was better described that this was because there was less information to digest per screen, and therefore each screen was easier to read. Some respondents also expressed a preference for version one as they did not have to 'scroll' to read all the information on the screen. However, no issues with ability to scroll were detected: even those with 'basic' levels of self-rated computer skills were able to scroll. Therefore, not wanting to scroll was based on preference rather than ability.
In contrast respondents who preferred version two said this was because the question stem 'How well can you understand/speak/read/write English' is only shown once on version two, rather than multiple times. As described above respondents felt this part of the question was unnecessary and did not think it should be repeated (or included at all). Respondents felt it was easier to see the differences between all four questions with this removed.
It was also noted that in version two people can see all questions together which made the questions 'flow better' better rather than seem disjointed. One respondent suggested that the key word in each question ('understand' 'speak' 'read' 'write') could be made bold so it would be easy to see the difference between each question.

Comments on advantages and disadvantages of each approach are summarised in Table A1 below.

Table A1: Advantages and disadvantages of online versions

|  | Online version One: Four screens | Online version Two: Single screen |
| :---: | :---: | :---: |
| Advantages | - Less text on each screen: 'Easier to digest' <br> - Less likely to need to scroll | - Can compare answers between four questions <br> - Better flow/ less disjointed <br> - Complex hyphenated question only shown once easier to see difference between the four questions |
| Disadvantages | - Repetitive having the same question stem repeated <br> - More difficult to see the differences between the questions. This is exacerbated by having the same stem repeated at the top of each screen. | - More text on a single screen <br> - Scrolling required |

### 1.7. Findings on the grid format

Respondents varied regarding how easy or difficult they found it to answer using the paper grid based format.

- Some respondents found completing the grid format easy and straightforward;
- Some respondents were able to answer using the grid format but commented on how they had to think a little about how they would fill it in; and
- Two respondents declined to answer through the grid, commenting that they found it too confusing.
It should be noted that in the cognitive interviews some data quality issues (i.e. nonresponse) occurred through the grid version that did not occur through the non-grid formats.

A number of respondents commented that they had to think about how to fill in the grid. It was suggested the presentation used was counter-intuitive.
Respondents commented that they would have expected the labels used to be in different positions; it felt odd to have the skills ('Understand', 'Speak', 'Read', and 'Write') on the horizontal axis and the proficiency levels ('Very well', 'Well', 'Not well', and 'Not at all') on the vertical axis.

### 1.8. Findings on preference between grid and non-grid formats

Respondents varied as to whether they thought the questions should use a grid based format (as used on paper) or a non-grid format (as used online). No consensus was reached.

Respondents:

- Thought both the grid format and the non-grid format were equally straight forward;
- Thought the grid version was better (and should also be used online as well as on paper); or
- Thought the non-grid format was better.

Respondents who felt the grid format was better commented that this was because less text was required and it seemed less repetitive. These respondents also felt this would be a quicker way of answering.
In contrast respondents who preferred the non-grid format said this was because the grid was confusing, it took longer to work out how to fill it in and which direction to read the response options in.
It should also be noted that respondents who preferred the grid format sometimes acknowledged grids may be more difficult for people who are not confident in their reading and writing abilities.
All comments on advantages and disadvantages of each approach are summarised in Table A2 below.

Table A2: Advantages and disadvantages of grid vs. non-grid formats

|  | Grid format | Non-grid format |
| :---: | :---: | :---: |
| Advantages | - Shorter- less text <br> - Quicker <br> - Can compare and contrast answers (unlike version one online) | - Simpler to fill in |
| Disadvantages | - Missing data <br> - Some confusion over direction of axis/ which box to tick | - May seem more repetitive <br> - Did not like the repeated stem online when presented on separate screens(i.e. How well can you understand/speak/read/write) |

### 1.9. Summary

- The questions which combined language skills and proficiency were well understood by all members of the cognitive sample and some found these questions easier than the alternative version which asked about skills and proficiency separately.
- Respondents were able to successfully answer using either version of the online questions. No consensus was reached regarding whether the online questions should be presented all on one screen or across multiple screens.
- There was a suggestion that only the key word in each question ('understand', 'speak', 'read', and 'write') could be made bold to make it easier to see the difference between each question.
- Respondents had mixed views on the grid based (paper) version of the question and there were some data quality issues (non-response) for the grid based question. No consensus was reached on respondent preference between the grid based format and non-grid based format.


### 1.10. English language: further versions tested

As an alternative to asking combined questions about the proficiency of each English language skill, an alternative version of the English language questions was tested. This included two questions, one about English language skills only and one about proficiency of spoken English only. These were shown on separate online screens.

Two paper versions of the latter question on spoken English proficiency were shown to respondents, to test whether a vertical or horizontal list was easier to answer.

These questions are shown below.

The aims of testing these were to establish:

- Whether respondents found the separate questions easier to answer than the previous questions which combined skills and proficiency; and
- Whether respondents found the horizontal or vertical layout of the 'spoken English proficiency' question on paper easier to answer.
Findings on testing the alternative questions are discussed in more detail in the following sections.

Online version three: skills separately from proficiency

Q11Ci. Can you understand/speak/read/write English?

Select all that apply.Understand spoken English
$\square \quad$ Speak English
$\square$ Read English
$\square$ Write English
$\square \quad$ None of the above

Q11Cii. How well can you speak English?

- Very well
- Well
- Not well
- Not at all

Paper version two: horizontal proficiency only question

## How well can you speak English?

- Tick one box


Paper version three: vertical proficiency only question

## 11 How well can you speak English?

- Tick one boxVery wellWellNot wellNot at all


### 1.11. Findings on the skills only (separated) question

All respondents who answered the skills only question gave the same response: selecting all options, indicating they could understand, speak, read, and write English.
This included the respondent who had previously said they could not write 'at all' for online versions one and two. This respondent was unclear as to whether the question was about their knowledge of how to read and write (literacy) or their physical ability due to their health.
One respondent declined to answer the skills only question. This was because they preferred the combined skills by proficiency questions that asked for ratings. There is no evidence to suggest that this refusal resulted from a lack of comprehension, and it is likely this missing data is therefore an artefact of the cognitive testing process.
All respondents were able to give a suitable response to the skills only question. However, some expressed initial confusion over what the questions was asking. These respondents hesitated before realising that they could select multiple options:

## "...too much at one go, more difficult."

Therefore, for some respondents, the task of answering the skills only question was less intuitive than the task of answering the combined skills by proficiency questions.
Respondents varied as to whether they thought the English language questions should use combined skills by proficiency questions or separate questions (one for skills and another for proficiency in spoken English).
Respondents either:

- Thought they could not give a preference as the questions are not asking for the same information and commented that the version which is best will depend on what level of information needs to be collected;
- Thought the combined skills by proficiency questions were better; or
- Thought the alternate version with separate questions was better.

A number of respondents commented, during probing, that although they could answer either version of the question, the two versions were not comparable in terms of the information they collected. They could say whether they could do each of the skills, or they could rate their proficiency in each skill. They commented that the question which is better depends on what information it is trying to collect.
Some respondents described how they preferred the alternative version which separate the questions on skills and proficiency, to the online combined questions on skills by proficiency. They said that this was because it was shorter, quicker and less repetitive than having to answer four separate questions.
In contrast other respondents felt that the four combined questions approach was better as people could provide more detail. Respondents also noted that they found the combined questions easier to answer as they understood straight away what was being asked, whereas they felt that the skills only question was more 'unusual' and took a little while to work out what was being asked.
Across all language skills questions tested, respondents commented that the skills only questions were difficult to answer if a respondent had limited proficiency in a
skill. Therefore including proficiency makes the question easier for respondents who feel that they have limited proficiency in a skill.
Table A3 summarises the advantages and disadvantages of the combined skills by proficiency format over the alternative separated version with one question for skills and another for proficiency in spoken English.

Table A3: Advantages and disadvantages combined vs. separated formats

|  | Combined skills by <br> proficiency questions | Alternative: separate <br> questions on skills and <br> spoken English proficiency |
| :--- | :--- | :--- |
| Advantages | - The questions are easier to <br> understand <br> -Can give different levels of <br> ability/ proficiency for <br> different skills <br> -Clearer for people with <br> limited proficiency <br> Disadvantages <br> - More repetitive (online) <br> - More time consuming | - Less repetitive |

### 1.12. Findings on vertical and horizontal formats on paper

Respondents consistently gave the same answer to the spoken English proficiency only question regardless of whether the answer options were displayed horizontally or vertically. Therefore, there is no evidence to suggest that either format will have an impact on data quality for these questions.
Respondents varied as to which format they preferred, with some preferring the vertical, some preferring the horizontal and some having no preference.
Respondents who did have a preference could not articulate why they preferred one version over another:
"I preferred the list, in my mind it just makes more sense"
Some respondents who preferred the horizontal format commented that this seemed more natural as people read from left to right. Nonetheless all respondents appeared confident about answering using either format.

### 1.13. Summary

- The questions which combined language skills and proficiency were well understood by all members of the cognitive sample and some found these questions easier than the alternative version which asked about skills and proficiency separately.
- All respondents gave identical answers to both the online versions and no consensus was reached on preference between the two versions.
- Respondents had mixed views on the grid based (paper) version of the question and there were some data quality issues (non-response) for the grid based question. No consensus was reached on respondent preference between the grid based format and non-grid based format.


## 4. Scottish Gaelic and Scots language ability

### 4.1. Questions tested and measurement aims

During the cognitive interviews, separating collection of data on Scottish Gaelic and Scots language, from collection of data on English language, was tested with the aim of improving data quality and reducing respondent burden.
Two versions of questions about Scottish Gaelic and Scots language were tested, one online and the second on paper. The online version showed two individual questions (one on Scottish Gaelic and one on Scots language) on separate screens. Respondents were asked to comment on whether they thought that these questions should be shown on one screen or two. The paper version was a grid based design similar to the Scotland's Census 2011 design but with English language removed and with the axes of the grid switched. The questions tested are shown below.

The aims of testing these questions were to:

- Explore understanding of the question (e.g. whether respondents understand the terms 'Scottish Gaelic' and 'Scots language');
- Explore whether respondents are able to answer using both the online format and the paper grid based format, and which format is clearer; and
- Explore whether respondents preferred the online questions to be shown on one screen or two.

Findings are discussed in the following sections.
Online version: two individual questions on separate screens.

Q12. Can you understand/speak/read/write Scottish Gaelic?
Select all that apply.
$\square$ Understand Scottish Gaelic
$\square$ Speak Scottish Gaelic
$\square$ Read Scottish Gaelic
$\square$ Write Scottish Gaelic
$\square \quad$ None of the above

Q13. Can you understand/speak/read/write Scots language?

Select all that apply.
v Understand Scots Language
$\square$ Speak Scots Language
$\square$ Read Scots Language
$\square$ Write Scots Language
$\square \quad$ None of the above

Paper version: grid based design


### 4.2. Notes on sampling

All interviews were conducted with respondents who lived in Edinburgh or Glasgow.
None of the respondents in the cognitive sample reported during testing that they had any skills in Scottish Gaelic. Therefore, it should be noted that these questions have not been tested with respondents with varying abilities in Scottish Gaelic.
Five respondents stated that they had some ability in Scots language at some point during the testing. However, there was evidence that these respondents did not have a consistent understanding of what Scots language is. Therefore, these questions have not been tested thoroughly with Scots language users.

### 4.3. Responses to an online question on Scottish Gaelic language skills

One respondent did not answer either of the online questions, on the grounds that they did not understand the difference between Scottish Gaelic and Scots language. All other respondents in the cognitive sample answered 'None of the above' to the online question on Scottish Gaelic language skills.

### 4.4. Responses to online questions on Scots language skills

Respondents gave varied answers to the questions on Scots language skills:

- Four respondents selected all response options, indicating that they could understand, speak, read, and write Scots language.
- One respondent indicated that they could understand and read Scots language but they said that they would not write it or speak it:
"I understand Scots, can read Scots, wouldn't say I can speak it although I use some words. It's not that I can't write Scots I just wouldn't try."
- Two respondents declined to answer the question as they did not understand what 'Scots language' referred to.
- All other respondents answered 'None of the above' to the question on Scots language.

It should be noted that some of the respondents who selected all response options were not confident regarding what the term 'Scots language' referred to:
"I'm going to tick them all but to be honest I don't really know what's meant by Scots language."
"It all depends on your definition of Scots language. I would say that I understand the language that most Scots speak... I have a Scottish accent, I can read what's written in contemporary Scottish language, and when it comes to it I can also write."
Therefore, it is possible that the question on Scots language will over-estimate the number of people who are fully competent, or conversant, in Scots language.
It was noted that, unlike the first version of the English language questions tested, these questions did not allow respondents to rate their proficiency in the Scottish Gaelic or Scots language skills.

One respondent described how they could use 'Old Scots’ or 'local dialects' a little, and therefore selected all four response options. In contrast, another respondent who selected 'None of the above' described how they would have indicated that they had 'some' understanding of Scots language, had this option been available. This respondent felt the questions should ask about proficiency like the first version of the English language questions tested, so that some indication of proficiency could be indicated. They thought this would make it easier for people with limited ability in a skill to answer.

### 4.5. Responses to paper version of the questions

In general, respondents gave the same responses to the paper versions of the questions as they did to the online versions of the questions. There was one respondent who answered the online questions but declined to answer the paper version on the basis that they did not like the grid based format.

### 4.6. Comprehension of 'Scottish Gaelic'

All respondents who took part in the cognitive interviews understood what was meant by the term 'Scottish Gaelic' despite the fact none of them reported any proficiency in this language.

Respondents discussed how this language was completely different from English and compared it to various 'foreign' languages. For example it was described as the "Scottish equivalent of Welsh."

Respondents also commented that Scottish Gaelic is:

- Written on road signs in Scotland:
- Taught in Scottish schools: and
- The language spoken on BBC Alba.

Respondents described how they thought the Scottish Gaelic language was more widely spoken in certain Scottish locations, for example the Hebrides and the Western Isles. No issues with understanding the question on Scottish Gaelic were detected.

### 4.7. Comprehension of 'Scots language'

In contrast, respondents who took part in the cognitive interviews did not have a consistent understanding of what was meant by 'Scots language.'
A variety of different explanations were given. These included:

- Local dialects (e.g. Dorrick), colloquial words, or 'slang'.
- The Scottish equivalent of 'pigeon English'.
- Anything spoken in a strong regional or Scottish accent.
- The language used by Robbie Burns, words used by older generations or a 'historic language':
"I don't have a clear definition of what that is other than an older version of what we're speaking now."
"...some of the old words that my granny would have used...'
Some respondents gave examples of Scots language words like 'bairn' for child, 'auld' for old or 'kirk' for church:
"It's things like auld instead of old, and I can definitely understand all of that."
Other respondents did not understand what the difference between Scottish Gaelic and Scots language was and said that they would assume these referred to the same thing. Some respondents only inferred that the two must be different when they saw that they were asked about in two difference questions.
Some respondents suggested that the question on Scots language should include a definition of what was meant by this term, as they were unsure what it referred to:
"I don't understand what the difference is between Scots language and Gaelic"
"...Well I thought Scots was like lowland Scots, what we would have spoken in medieval times, but then I was thinking like how my grandparents talked...but then was that just slang?"
"...there's dialect, and there's slang terms and colloquial terms, which people might understand but might not necessarily be classed as Scots Language... I think that's a bit ambiguous.'

These variations in understanding did have an impact on the data being collected. Some respondents were answering that they could understand, speak, read, or write Scots language on the basis that they felt it was like English with some different words. In contrast other respondents were selecting that they could not do these things despite indicating a similar level of ability. Some non-response was also noted on the basis of people not understanding the question.

### 4.8. Findings comparing the online and the paper approach

Respondents varied as to whether they thought the Scottish Gaelic and Scots language questions should use a grid based format (as used on paper) or two separate questions (as used online). No consensus was reached.
Respondents either:

- Thought both formats were equally straight forward;
- Thought the grid format was better (and should also be used online as well as on paper); or
- Thought the separate question format was better.

Respondents who felt the grid format (as shown in the paper version) was better commented that this was because less text was required and it would be a quicker way of answering. Some preferred the grid format because of the 'no ability' response option; it was felt that this was clearer than the 'none of the above' response option. It was also noted that on the grid format it was easier to infer that Scottish Gaelic and Scots language are different things as the two questions are next to each other on the same page ${ }^{6}$.
In contrast, respondents who preferred the separate questions format (as shown in the online version) said that they did not like the question stem on the grid format (i.e. Can you speak/understand/ read/write Scottish Gaelic or Scots language). It was felt that this question stem was difficult to read because it contained multiple slashes and compounded different things.

Some respondents objected to the grid based design and one declined to answer the question as they did not like the grid format. In addition some respondents preferred the response option 'None of the above' as it sounded less derogatory than the response option that said 'No ability'.

Finally it was noted that the two online questions should be shown on the same screen, this way people would be able to compare the Scottish Gaelic and Scots language questions.
All comments on advantages and disadvantages of each approach are summarised in Table A4 below.

[^4]Table A4: Advantages and disadvantages of the different formats

|  | Separate question format (online version) | Grid format (paper version) |
| :---: | :---: | :---: |
| Advantages | - Easier to read and understand <br> - Does not use the compound question stem | - Quicker <br> - Clear that Scottish Gaelic and Scots language are different things |
| Disadvantages | - Takes more time to answer if split over two screens <br> - Less clear that there is a difference between Scottish Gaelic and Scots language if shown on different screens | - Some missing data due to grid format <br> - More complicated to understand a grid format <br> - Did not like 'angled text 'on grid |

### 4.9. Summary

- The main issue detected was respondents' inconsistent understanding of the term 'Scots language'. This led to some missing data and inconsistent responses between individuals with similar levels of skill in the language.
- It was suggested that a short definition of Scots be added to the question.
- Some respondents felt that asking for proficiency of each skill may be better in that variations in ability could be captured.
- In general, respondents gave the same responses to the paper and online versions of the questions.
- There was some evidence of poorer data quality from the grid format and more expressions of confusion.
- It was recommended that the pair of online questions be shown on the same screen so that respondents can easily compare the two questions.


## 5. British Sign Language (BSL)

### 5.1. Questions tested and measurement aims

During the cognitive interviews two versions of a question on BSL use were tested. Both of these were online. Version one asked whether or not the respondent could use BSL where version two asked which skills respondents had in BSL (understanding, signing or no ability). The questions tested are shown below.

General population version one: binary (yes/no) response options

Q14A. Can you use British Sign Language?

- Yes
- No

General population version two: individual skills response options

> Q14B. Can you use British Sign Language?

Select all that apply.
Understand
$\square$ Sign
$\square$ No ability

The aims of testing these questions were to:

- Explore respondents understanding of the BSL question; and
- Explore whether respondents had a preference between the two question versions and why this was.


### 5.2. Notes on sampling

It should be noted that no one in the general population cognitive interviewing sample indicated that they could use BSL (i.e. no one answered 'Yes' at version one or 'Understand' or 'Sign' at version two. The results presented in this annex report findings from the general population only. Findings from Cognitive testing with BSL users are available in Annex C.

### 5.3. Comprehension of ‘British Sign Language’ terminology

In general respondents found the question on BSL easy to understand. Although some respondents did not know what BSL was they were able to correctly identify they could not use it.
Others commented that they understood BSL to be a visual language of hand signals and 'finger spelling' primarily used by people who are deaf:
"...'language used for people who are hearing impaired."
"...for people who are deaf to communicate, their own language."
Some respondents described how they did not realise there was a distinct 'British' version of sign language but this did not impact on how they answered.

### 5.4. Preference between versions

During probing, respondents were asked whether they had a preference between the two versions of the question. There was no consensus over this issue:

- Some respondents had no preference between versions. They thought both versions were equally clear and easy to understand.
- Some respondents preferred the BSL use version (first version) as they felt the $\mathrm{Yes} / \mathrm{No}$ response options were quicker to answer and more simple compared to the list of skills.
- Respondents who preferred the BSL use version tended to think that if you could understand sign language you must have some ability to sign it and therefore splitting the question up would not be necessary. It was also noted by some respondents that the response option 'No ability' used in version two sounded negative.
- In contrast some respondents preferred the BSL skills version (second version) of the question. It was felt that this version would be better for respondents who can understand sign language but not sign themselves. Respondents were unsure about the prevalence of this situation but they felt that if it was fairly common, the second version of the question was better.
- It was also noted that if the differentiation between 'understand' and 'speak' is made for the other language questions it should also be made for BSL.
It should be noted that in the cognitive interviews there were no cases of respondents providing different answers between the two versions of the questions. Therefore, no evidence was found that the different preferences had any impact on data quality.

Respondents' views on the advantages and disadvantages of both versions are summarised in Table A5.

Table A5: Advantages and disadvantages of each version tested

|  | Version One <br> (Yes, No) | Version Two <br> (Understand, Sign, No ability) |
| :--- | :--- | :--- |
| Advantages | • Shorter and more simple | -Provides equivalence to the <br> other language questions <br> which have a distinction <br> between different skills <br> DisadvantagesRespondents who can <br> understand but not sign <br> may not know how to <br> answer |
| - 'No ability' sounds negative |  |  |
| -Some respondents queried <br> whether it was possible for <br> people to understand sign <br> language but not sign it - they <br> queried whether the <br> differentiation was necessary |  |  |

### 5.5. Responses option format

Respondents felt that it was not clear how people with some limited ability in BSL should answer these questions. For example, one respondent described how they could sign 'a bit' but was not confident enough in their ability to select 'Yes' in version one or 'sign' in version two.
Another respondent described how they could use a few of the hand signals but were not proficient in signing. Another described having a daughter who was 'nonverbal' and therefore could use some hand-signals but could not sign proficiently.
None of the above respondents answered that they could use BSL when giving their responses. However, they noted that if proficiency of each BSL skill was asked about, this question would be clearer and they could have indicated they had 'some' ability rather than no ability.

### 5.6. Summary

- No major issues in comprehension were detected with either of the two question versions tested.
- There was no consensus regarding whether version one or version two was better, and both seemed to be non-problematic in the cognitive interviewing.


## 6. Other language

### 6.1. Questions tested and measurement aims

The cognitive interviews included testing of two questions on other language. The data collected is used along with English language skills and proficiency data to identify those who require services in a language other than English.
The first question tested asked about 'main language'. The second asked 'Do you use a language other than English at home?' as was asked in Scotland's Census 2011. Both versions were online.

Version one: main language


Version two: home language

Q15B. Do you use a language other than English at home?

O No, English only
Yes, please enter (including British Sign Language)


The aim of testing these questions was to:

- Explore respondents understanding of the terminology used; and
- Explore which question generates more 'false positives': where respondents report a language (other than English) in which they do not require service provision (or support), including reporting multiple languages.;

Findings on these issues are discussed below.

### 6.2. Responses given to the question

In total, 8 respondents in the cognitive sample reported speaking a language other than English at one or both of the other language questions. The answers given to each question by these respondents are summarised in the Table A6 overleaf.

Table A6: Response mapping for questions on other language

| Response to <br> version one (Main <br> language) | Response to version two <br> (Language other than <br> English used at home) | Notes on response mapping |
| :--- | :--- | :--- |
| Other: "Icelandic" | No, English only | This respondent said that they assumed that the first question was asking for <br> their 'first language' or 'mother tongue' which is Icelandic. They selected 'No, <br> English only' at the second question as they live with people who do not speak <br> Icelandic and they communicate in English and had understood the second <br> question to be asking about the language they used in their house. |
| English | Yes: "Shawna, Ndebele" | This respondent was from Zimbabwe. They said that they assumed the first <br> question was asking for their 'mother tongue', which is English, and that the <br> second question was about what languages they speak in their 'home country'. |
| Other: "Punjabi" | Yes: "Punjabi" | This respondent spoke both English and Punjabi. They said that both <br> languages were spoken in their household. They described the questions as <br> 'tricky' as they wanted to answer with both English and Punjabi. They did not <br> try to select more than one response option at either question. |
| English | Yes: "Punjabi/ Urdu" | These three respondents all said that they felt that the first question was about <br> the language you 'spoke the most' whereas they felt that the second question <br> was about the language you spoke 'at home' with your family. |
| English | Yes: "Punjabi" | Yes: "Punjabi and English" |
| English | Yes: Not recorded | This respondent was Chinese/Malaysian. They described how they spoke 7-8 <br> languages and they would have listed these in the census (not recorded in <br> interview). They felt that the second question was asking about any other <br> languages they were fluent in that they might use with other people. |
| English | Yes: "Punjabi" | This respondent was fluent in both English and Punjabi and gave 'Punjabi' as <br> their response for both questions. |
| Other: "Punjabi" | Yand |  |

As described in Section 1.2 all interviews were conducted in English, and all respondents stated that they could understand, speak, read and write English 'Very well' when asked to self-rate their English proficiency.

### 6.3. Comprehension of 'main language' terminology

Respondents had slightly different understandings of what was meant by 'main language' in the first question.
Some respondents felt this question was trying to measure which language you use 'most often' whilst others thought it was about a person's 'mother tongue', the first language learnt or the language they were most fluent in.
Respondents who were fully bilingual (for example those who spoke both English and Punjabi equally well and who used the two languages interchangeably in their day-to-day life) struggled to identify which was their 'main language.'

### 6.4. Comprehension of 'Language used at home' terminology

Respondents also had different interpretations of the phrase 'at home' when answering the second question.

Some respondents felt that the questions were about the language spoken within their household whereas others thought it was about the language they speak in their home country.

Some respondents felt the question was about any language they were fluent in.
A number of respondents discussed, during probing, that they could speak some German or French. However, these languages were not recorded at either question as respondents did not feel these secondary languages were required based on the current wording of the questions.

### 6.5. Summary

- Respondents had varying interpretations of what was meant by 'main language': "language used 'most often'", "mother tongue", "first language learnt" and "language most fluent in" were all used as descriptors.
- Respondents also had varying interpretations of the phrase 'at home'. Some respondents felt that the questions was about the language spoken within their household whereas others thought it was about the language they speak in their home country.
- Either of the questions could be used as a measure of the number of people who require support if they are used in conjunction with the question on English language ability.
- Respondents wanted to express whether they were fully bilingual i.e. if they could speak both English and another language equally well. Although adding a multi-tick option may improve the user-experience of answering the question for fully bi-lingual people, this is not the intended aim of the question.


## Annex B: Quantitative Testing - Language Questions

In 2017 NRS commissioned ScotCen Social Research to conduct cognitive and quantitative testing of selected questions for potential inclusion in Scotland's Census 2021. Information about this testing can be found in the 2017 Cognitive and Quantitative Testing Report (PDF).

## 1. English language

### 1.1. Question tested and aims of testing

Two questions gathered information about English language in Scotland's Census 2011: one on whether respondents could understand, speak, read, or write English and a second on respondents' proficiency in spoken English.

In 2011, the former of the two questions was part of a combined question on English, Scottish Gaelic and Scots language skills. The questions and their guidance are currently under review in a bid to improve data quality.
Testing was undertaken to investigate whether splitting the English language skills into a separate question from the one which asks about Scottish Gaelic and Scots language skills would improve data quality.
The English language question being tested gathers information on respondents' proficiency in each of the four English language skills.
The English language skills by proficiency question set was included in the individual section of the 2017 quantitative testing. The question asked respondents how well they could understand, speak, read and write English.
The paper version of the question used a grid based format to ask about proficiency in each of the four skills, while the online version used a separate question for each English language skill. The four questions online were shown on one screen.

## 2017 Quantitative Test - Paper Version

18 How well can you understand, speak, read and write English?

- Tick one box in each column


Quantitative Test - Online Version

```
Q18a. How well can you understand English?
    - Select one onl
    - Very well
    O Well
    - Not well
    O Not at al
Q18b. How well can you speak English?
    - Select one only
    O Very well
    O Well
    O Not well
    O Not at all
Q18c. How well can you read English?
    * Select one only
    O Very well
    O Well
    O Not well
    O Not at all
Q18d. How well can you write English?
- Select one only
O Very well
- Well
O Not well
- Not at al
4 Previous Stop © Nest question *
```

The aims of testing this question were:

- To look at the distribution of responses, including similarities and differences in distribution compared with Scotland's Census 2011 data;
- To look at the distribution of responses by Scots language; and
- To analyse item non-response rates and invalid responses by mode as a measure of data quality.

For the analysis of the quantitative testing, the four English language skills (understand, speak, read, and write) were treated as separate questions, as this is how they were asked online.

For analysis, respondents were classed as having an English language skill if they selected 'very well' or 'well' at the relevant question. This is consistent with the methodology used in 2011 Census and therefore allows for quality checks against existing data sources.

### 1.2. English language distribution ${ }^{7}$

Overall, around $95 \%$ of respondents who fully completed the questionnaire ${ }^{8}$ provided a valid response to all four English language questions.
For full completions, the English language skill with the highest valid response rate was 'Understand' (around 98\%). For each of the 'Speak', 'Read', and 'Write' skills, around $97 \%$ of respondents provided a valid response.
Item non-response accounted for the majority of invalid responses to all English language skills.
Around $94 \%$ of respondents reported being able to speak English 'very well', whilst around $5 \%$ reported being able to speak English 'well'. Around 1\% reported being able to speak English 'not well', and less than 1\% reported being able to speak English 'not at all'.

In Scotland's Census 2011, 89.0\% of those aged three and over were reported to be able to speak English 'Very well'. The equivalent figures for being able to speak 'Well', 'Not well' and 'Not at all' were $9.6 \%, 1.2 \%$ and $0.2 \%$, respectively.

Similar patterns were seen in the testing amongst the other three English language skills; most respondents reported being able to understand, read, or write English (around $99 \%, 98 \%$, and $98 \%$ respectively).
Less than $1 \%$ of respondents reported no English language skills - that is, answered 'not well' or 'not at all' for all English language skills. This is comparable to the Scotland's Census 2011 figure where less than $1 \%$ of respondents reported no skills in English language.
Table B1: Distribution of responses to each English language question (full completions only, weighted)

|  |  |  | $N$ | \% of valid responses |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Very well | 1,308 | 94 |
|  |  | Well | 73 | 5 |
|  |  | Not Well | 8 | 1 |
|  |  | Not at all | 2 | $<1$ |
|  |  | Total valid responses | 1,391 | 100 |
|  |  | Non-response | 16 | - |
|  |  | Other invalid responses | 8 | - |
|  |  | Total invalid | 25 |  |
|  |  | Total responses | 1,416 |  |
|  |  | Very well | 1,287 | 94 |
|  |  | Well | 67 | 5 |
|  |  | Not Well | 12 | 1 |
|  |  | Not at all | 2 | $<1$ |
|  |  | Total valid responses | 1,368 | 100 |
|  |  | Non-response | 47 | - |
|  |  | Other invalid responses | 1 | - |
|  |  | Total invalid | 48 | - |
|  |  | Total responses | 1,416 | - |

[^5]|  |  |  | $N$ | \% of valid responses |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { ס్జ } \\ & \text { 区 } \\ & \hline \end{aligned}$ | Very well | 1,283 | 94 |
|  |  | Well | 64 | 5 |
|  |  | Not Well | 21 | 2 |
|  |  | Not at all | 1 | <1 |
|  |  | Total valid responses | 1,368 | 100 |
|  |  | Non-response | 47 | - |
|  |  | Other invalid responses | 1 | - |
|  |  | Total invalid | 48 | - |
|  |  | Total responses | 1,416 | - |
|  |  |  |  |  |
|  | ¢ | Very well | 1,258 | 92 |
|  |  | Well | 87 | 6 |
|  |  | Not Well | 23 | 2 |
|  |  | Not at all | 1 | <1 |
|  |  | Total valid responses | 1,369 | 100 |
|  |  | Non-response | 46 | - |
|  |  | Other invalid responses | 1 | - |
|  |  | Total invalid | 47 | - |
|  |  | Total responses | 1,416 | - |

## English language by mode

Respondents who could understand English (i.e. responded to the question on ability to understand English with either 'Very well' or 'Well') were evenly split across modes.

The same was true for respondents who answered 'very well' for the other three skills: speaking, reading, and writing. However, of those who reported that they could read English 'well', 62\% completed the questionnaire on paper.
Base sizes amongst those who answered 'not well' or 'not at all' to English language skills were very small and, as such, findings between these groups and mode are unlikely to be significant.

Item non-response for understanding English was split fairly evenly across modes. However, for the other three skills (speaking, reading and writing), item nonresponse was much higher on paper than online. For all skills $1.3 \%$ of total online response was item non-response. On paper, item non-response accounted for $1.1 \%$ of responses to whether or not a respondent understood English but the equivalent figures for speaking, reading and writing English were higher at $5.4 \%, 5.3 \%$, and $5.2 \%$ respectively.
This uneven distribution of item non-response by mode could indicate that respondents experienced an issue with the layout of the question on paper.
All other invalid responses, attributable to invalid by multi-tick (where a respondent had selected more than one valid response to a question), were not possible through the online mode and are therefore the result of paper completions.
For 'understand' English, around 1\% of paper responses were invalid by multi-tick. This figure was lower for 'speak', 'read', or 'write' English (all <1\%).

Table B2: English language skills by proficiency by mode (as a percentage, based on weighted estimates of responses from full completions)

|  |  |  | Mode |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Number of responses Online (\%) | Number of responses Paper (\%) | Total |
|  |  | Very well | 50 | 50 | 100 |
|  |  | Well | 48 | 52 | 100 |
|  |  | Not Well | 32 | 68 | 100 |
|  |  | Not at all | 29 | 71 | 100 |
|  |  | Total valid responses | 50 | 50 | 100 |
|  |  | Non-response | 54 | 46 | 100 |
|  |  | Other invalid responses | 0 | 100 | 100 |
|  |  | Total invalid | 36 | 64 | 100 |
|  |  | Very well | 51 | 49 | 100 |
|  |  | Well | 45 | 55 | 100 |
|  |  | Not Well | 67 | 33 | 100 |
|  |  | Not at all | 29 | 71 | 100 |
|  |  | Total valid responses | 51 | 49 | 100 |
|  |  | Non-response | 19 | 81 | 100 |
|  |  | Other invalid responses | 0 | 100 | 100 |
|  |  | Total invalid | 18 | 82 | 100 |
|  |  |  |  |  |  |
|  | $\begin{aligned} & \underset{\mathbb{Z}}{\mathbf{0}} \\ & \underset{\sim}{2} \end{aligned}$ | Very well | 52 | 48 | 100 |
|  |  | Well | 38 | 62 | 100 |
|  |  | Not Well | 25 | 75 | 100 |
|  |  | Not at all | 100 | 0 | 100 |
|  |  | Total valid responses | 51 | 49 | 100 |
|  |  | Non-response | 19 | 81 | 100 |
|  |  | Other invalid responses | 0 | 100 | 100 |
|  |  | Total invalid | 18 | 82 | 100 |
|  |  |  |  |  |  |
|  | $\stackrel{0}{4}$ | Very well | 51 | 49 | 100 |
|  |  | Well | 53 | 47 | 100 |
|  |  | Not Well | 27 | 73 | 100 |
|  |  | Not at all | 100 | 0 | 100 |
|  |  | Total valid responses | 51 | 49 | 100 |
|  |  | Non-response | 19 | 81 | 100 |
|  |  | Other invalid responses | 0 | 100 | 100 |
|  |  | Total invalid | 19 | 81 | 100 |

## English language by Scots language skills

Overall, $50 \%$ of respondents who reported that they could understand English reported that they had 'no ability' in Scots language.
There is evidence that the 2011 census data is not accurate for English language skills. This was identified as there were a considerable number of people who reported having no skills in English but also reported full proficiency in Scots.

Looking at responses from those who gave a valid answer for each skill in both English and Scots language, respondents who didn't have a skill in English generally did not have the skill in Scots language either.

- Of respondents who said that they could not understand English language, $76 \%$ said that they could not understand Scots language either.
- Of respondents who said that they could not read English, 94\% said that they could not read Scots language either.
- The equivalent values for speaking and writing were $100 \%$.

This suggests that the issue present in the 2011 Census may be addressed by the splitting of the English language skills question from the Scots language (and Scottish Gaelic) skills question.

Table B3: English language skills by Scots language skills (as a percentage, based on weighted estimates of responses from full completions

|  |  | Scots language skills |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Understands | Speaks | Reads | Writes | No ability |
|  | \% of those who don't understand English | 24 | 0 | 0 | 0 | 76 |
|  | \% of those who don't speak English | 15 | 0 | 0 | 0 | 85 |
|  | \% of those who don't read English | 37 | 6 | 6 | 4 | 64 |
|  | \% of those who don't write English | 28 | 0 | 0 | 0 | 72 |

## English language by main language

Almost all respondents who reported being able to understand, speak, read, or write English 'very well' also reported that English was their main language (between around $95-96 \%$ for each skill), as shown in Table B4.

For those who reported being able to understand, speak, read or write English 'well', around half reported a language other than English as their main language.

Base sizes amongst those who reported understanding, speaking reading or writing English 'not well' or 'not at all' are too small to comment on any relationship with main language.

Table B4: English language skills by main language (as a percentage, based on weighted estimates of responses from full completions)

|  |  |  | Main language |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | English (\%) | Other (\%) | Total valid responses (\%) |
| English language skills by proficiency | Understand | Very well | 96 | 4 | 100 |
|  |  | Well | 40 | 60 | 100 |
|  |  | Not Well | 53 | 47 | 100 |
|  |  | Not at all | 0 | 100 | 100 |
|  | Speak | Very well | 96 | 4 | 100 |
|  |  | Well | 42 | 58 | 100 |
|  |  | Not Well | 6 | 94 | 100 |
|  |  | Not at all | 0 | 100 | 100 |
|  | Read | Very well | 95 | 5 | 100 |
|  |  | Well | 53 | 47 | 100 |
|  |  | Not Well | 56 | 44 | 100 |
|  |  | Not at all | 42 | 58 | 100 |
|  | Write | Very well | 96 | 4 | 100 |
|  |  | Well | 50 | 50 | 100 |
|  |  | Not Well | 59 | 41 | 100 |
|  |  | Not at all | 41 | 59 | 100 |
|  |  | Total valid responses to all four English language questions/columns | 92 | 8 | 100 |

Overall, a small majority of those who reported their main language to be a language other than English, responded 'very well' to each English language skill, as shown in Table B5. Around $53 \%$ of those whose main language was something other than English reported being able to understand English 'very well'. The equivalent figures for speaking, reading and writing English were 51\%, 63\%, and 50\%, respectively.

Table B5: English language skills by main language (as a percentage, based on weighted estimates of responses from full completions)


### 1.3. Invalid responses to English language skills ${ }^{9}$

## All types of invalid response

In total, 105 respondents provided an invalid response to at least one of the four questions on English language ability, 34 of which were attributable to partial completions and thus an artefact of questionnaire drop out.
When looking at item non-response from fully completed questionnaires only, the English language skill with the lowest invalid response rate was 'Understand', at 21 cases, compared with around 59-61 cases for the other three skills.
The majority of all invalid responses from full completions were attributable to item non-response, which ranged from around 15 cases for the 'Understand' skill to 57-59 cases across ability the other three English language skills.

Invalid responses by multi-ticks accounted for six cases for the 'Understand' skill and between one and two cases for all other English language skills.

### 1.4. Feedback

The questionnaire was split into four sections online. At the end of each of the four sections respondents were asked to state if they found any questions within the section difficult to answer, and to provide feedback on why this was the case in an open text box. For the paper questionnaire, feedback questions were all included at the end of the full questionnaire.
When asked "Did you find any of the following questions difficult to answer: Q18. English language", only $1 \%$ of respondents indicated that they did find the English language questions difficult to answer.
There appears to be no mode effect; three respondents who reported finding the question difficult responded online, whilst five responded on paper. However, these numbers are small and have not been tested for significance.
Of the 8 respondents who expressed finding the English language questions difficult to answer, all provided a valid response to all four questions.

[^6]
## 2. Scottish Gaelic language

### 2.1. Questions tested and aims of testing

Information on Scottish Gaelic language skills was collected in Scotland's Census 2011. However, the question and its guidance are currently under review in a bid to improve data quality.
In Scotland's Census 2011 information on Scottish Gaelic language skills was collected in the same question that asked about English and Scots language skills.
For the 2017 testing, the paper version of this question was split into one question on English language skills (discussed above) and another on Scottish Gaelic and Scots language skills.

The paper version of the question in the testing used a grid based format to ask about Scottish Gaelic and Scots language skills together, while the online version tested used a separate question for each language. Online both questions were shown on one screen.

2017 Quantitative Test - Paper Version
(19) Can you understand, speak, read and write Scottish Gaelic or Scots language?

- Tick all that apply



## Quantitative Test - Online Version

```
Q19a. Can you understand, speak, read and write Scottish Gaelic?
    - Select all that apply
        Understand spoken Scottish Gaelic
    \square Speak Scottish Gaelic
    R Read Scottish Gaelic
    Write Scottish Gaelic
    None of the above
    4 Previous Stop © Next question *
```

The aims of testing this question were to:

- Look at the distribution of responses, including similarities and differences in distribution compared with Scotland's Census 2011 data;
- Look at the distribution of responses by mode, Scots language skills and main language; and
- Analyse item non-response and other invalid response rates by mode as a measure of data quality.


### 2.2. Scottish Gaelic language distribution ${ }^{10}$

Around $88 \%$ of respondents who fully completed the questionnaire ${ }^{11}$ provided a valid response to the Scottish Gaelic language skills question.
Of valid responses, $4 \%$ of respondents reported that they could understand Scottish Gaelic. The equivalent figures for speaking, reading and writing Scottish Gaelic were $2 \%, 2 \%$ and $1 \%$, respectively.
The large majority ( $96 \%$ ) of respondents reported having no skills in Scottish Gaelic.
In the 2011 Census around $1 \%$ of the population reported that they could speak Scottish Gaelic, a similar proportion to that found in the 2017 test.

Table B6 Distribution of respondents with Scottish Gaelic language skills, weighted (\% of valid responses to each skill)

|  | $\%$ | Weighted base |
| :--- | ---: | ---: |
| Understand | 4 | 45 |
| Speak | 2 | 21 |
| Read | 1 | 20 |
| Write | 1 | 14 |
| No ability | 96 | 1238 |

## Scottish Gaelic language by mode

When exploring Scottish Gaelic language distribution by mode, online responses accounted for $54 \%$ of total valid responses, whilst paper accounted for $46 \%$.
A higher proportion of people with each Scottish Gaelic language skill completed the questionnaire online. However, this is largely reflective of the modal response of the total sample.
Of respondents who reported having no ability in Scottish Gaelic, 54\% completed the questionnaire online while $46 \%$ completed the paper questionnaire.
Of all online responses, $9 \%$ reported having any skills in Scottish Gaelic compared with $5 \%$ of paper responses.

[^7]Table B7 Scottish Gaelic language skills by mode (weighted responses) ${ }^{12}$

|  |  | Mode |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Number of responses - Online (\%) | Number of responses - Paper (\%) | Total (\%) |
|  | Understands | 56 | 44 | 100 |
|  | Speaks | 68 | 32 | 100 |
|  | Reads | 77 | 23 | 100 |
|  | Writes | 90 | 10 | 100 |
|  | No ability | 54 | 46 | 100 |
|  | Total valid responses | 54 | 46 | 100 |

## Scottish Gaelic language by main language

When looking at Scottish Gaelic language skills and main language, the vast majority of those with skills in Scottish Gaelic reported English to be their main language.

No respondents gave 'Gaelic’ or 'Scottish Gaelic’ as their main language.

## Scottish Gaelic language skills

As shown in table B8, the majority of those who provided a response to the Scottish Gaelic language skills question selected just one skill. It is important to note that this includes selecting only 'No ability' or 'None of the above'.
Of the six respondents who selected two Scottish Gaelic language skills, four responded that they could understand and speak Scottish Gaelic. One respondent selected understand and read Scottish Gaelic. One respondent who selected two responses to the question on Scottish Gaelic language responded understand and no ability, and was therefore coded as an invalid combination.
Of the respondents who selected three Scottish Gaelic language skills, five selected understand, speak and read Scottish Gaelic and one selected understand, read and write Scottish Gaelic, and the last selected speak, read and write Scottish Gaelic.

Twelve respondents selected all four Scottish Gaelic language skills in combination that is, understand, speak, read and write Scottish Gaelic.

A further seven respondents selected all four Scottish Gaelic language responses and 'No ability' or 'None of the above' and were therefore coded as invalid combinations.

Table B9 shows that of those reported being able to understand Scottish Gaelic, less than half reported being able to speak, read or write it.
In contrast, the vast majority of those who reported being able to write Scottish Gaelic also reported being able to understand, speak and read it.
This suggests that respondents understood the 'select all that apply' guidance, rather than selecting what they considered to be their 'highest' skill.

[^8]Table B8: Scottish Gaelic language skills by Scots language skills (unweighted counts)

|  |  | Number of responses |
| :---: | :---: | :---: |
|  | Ticked 1 response option | 1231 |
|  | Ticked 2 response option | 6 |
|  | Ticked 3 response option | 7 |
|  | Ticked 4 response option | 12 |
|  | Ticked 5 response option (invalid combination) | 7 |

Table B9: Scottish Gaelic language skills by Scottish Gaelic language skills, weighted

|  | Scottish Gaelic language skills |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | Understands | Speaks | Reads | Writes | Total |
| Understands |  | $44 \%$ | $38 \%$ | $31 \%$ | $100 \%$ |
| Speaks | $92 \%$ |  | $75 \%$ | $63 \%$ | $100 \%$ |
| Reads | $85 \%$ | $81 \%$ |  | $72 \%$ | $100 \%$ |
| Writes | $97 \%$ | $95 \%$ | $100 \%$ |  | $100 \%$ |

### 2.3. Invalid responses to Scottish Gaelic language skills

## All types of invalid response

Responses were considered to be 'partial completions' if no questions later than the marital status question were answered by the respondent. For all questions after the marital status question, partial completions have been treated as questionnaire drop out and are commented on separately from item non-response by full completions.
Overall, $2 \%$ of total responses were considered to be partial completions.
Of those who had fully completed the questionnaire, around $88 \%$ gave valid responses to the Scottish Gaelic language question, while around 12\% gave invalid responses ${ }^{13}$.
Almost all invalid responses from full completions were due to item non-response (157 cases ${ }^{14}$ ). There were 8 responses which were invalid combinations (where a respondent reported 'no ability' in Scottish Gaelic but also reported being able to understand, speak, read, or write it.
Non-response in fully completed questionnaires accounted $11 \%$ of total responses to the Scottish Gaelic language skills question.

## All types of invalid response by mode

It is worth noting that the majority (150 cases) of invalid responses were generated on the paper questionnaire, whilst only seven were generated online.
Of all full completions online, less than $1 \%{ }^{15}$ did not respond to the Scottish Gaelic language skills question. The equivalent paper figure was around $11 \%$.

[^9]All of the invalid responses due to invalid combinations were generated on the paper questionnaire, as this type of invalid response was not possible on the online mode.

Table B10 Scottish Gaelic language skills by mode (unweighted invalid responses)

|  | Mode |  |  |
| :--- | ---: | :--- | ---: |
|  | Number of <br> responses - <br> Online | Number of <br> responses - <br> Paper | Total |
| Item non response - full completions | 7 | 150 | 157 |
| Item non-response - partial completions | 34 | 0 | 34 |
| Invalid multi-tick - paper only, single tick <br> questions | 0 | 0 | 0 |
| Invalid combination | 0 | 8 | 8 |
| Routing error |  |  | 158 |
| Total invalid responses | 41 | 199 |  |
| Not applicable |  |  |  |
| Total valid responses | 604 | 651 | 1,255 |
| Total responses | 645 | 809 | 1,454 |

## Invalid response by Scots language skills

Of full completions where an invalid response was given to the Scottish Gaelic language skills question (165 responses), 39\% also gave an invalid response to the question on Scots language skills.
For fully completed questionnaires, 37\% of paper responses gave an invalid response to both Scottish Gaelic and Scots language skills. The equivalent value for online respondents was $86 \%$.

This may indicate that respondents mistakenly think that they only need to answer one of these two questions on paper, due to the layout of the question. However, it should be noted that some of the numbers (particularly of invalid online responses to this question) are very small and so figures may not be significant.

### 2.4. Feedback

The questionnaire was split into four sections online. At the end of each of the four sections respondents were asked to state if they found any questions within the section difficult to answer, and to provide feedback on why this was the case in an open text box. For the paper questionnaire, feedback questions were all included at the end of the full questionnaire.
When asked "Did you find any of the following questions difficult to answer: Q19a. Scottish Gaelic language skills", only $1 \%$ of respondents ticked that they did find this question difficult to answer.
Of these 14 cases, 11 gave a valid answer to the Scottish Gaelic language skills question and three gave an invalid answer.

## 3. Scots language

### 3.1. Questions tested and aims of testing

Information on Scots language skills was collected in Scotland's Census 2011. However, the question and its guidance are currently under review in a bid to improve data quality.
In Scotland's Census 2011 information on Scots language skills was collected in the same question that asked about English and Scottish Gaelic language skills.
For the 2017 testing, the paper version of this question was split into one question on English language skills (discussed above) and another on Scottish Gaelic and Scots language skills.

The paper version of the question in the testing used a grid based format to ask about Scottish Gaelic and Scots language skills together, while the online version tested used a separate question for each language. Online both questions were shown on one screen.

2017 Quantitative Test - Paper Version


Quantitative Test - Online Version

```
Q19b. Can you understand, speak, read and write Scots language?
    - Select all that apply
    \square Understand spoken Scots Language
    Speak Scots Language
    Read Scots Language
    Write Scots Language
    None of the above
```

    4 Previous Steo : Neqt cuelsion -
    The aims of testing this question were to:

- Look at the distribution of responses, including similarities and differences in distribution compared with Scotland's Census 2011 data; and
- Analyse item non-response and other invalid response rates by mode as a measure of data quality.


### 3.2. Scots language distribution ${ }^{16}$

Overall, $88 \%$ of respondents who had fully completed the questionnaire provided a valid response to the Scots language question and $12 \%$ of respondents provided an invalid response.
Of valid responses, $42 \%$ reported being able to understand Scots language. The equivalent numbers for speaking, reading and writing were $26 \%, 30 \%$ and $20 \%$, respectively.
Almost half of respondents reported having no skills in Scots language (45\%).
The format of the outputs from the 2011 census means that direct comparisons for all categories were not possible. However, $26 \%$ of people aged three or over reported that they could speak Scots language and 62\% reported having no skills in the language. These figures are broadly comparable to the equivalent $30 \%$ and $45 \%$ in the testing.

Table B11 Distribution of respondents who have Scots language skills responses from 2017 testing, weighted (\% of valid responses to each skill)

|  | $\%$ | Weighted base |
| :--- | ---: | ---: |
|  |  |  |
| Understand | 42 | 608 |
| Speak | 26 | 378 |
| Read | 30 | 428 |
| Write | 20 | 290 |
| No ability | 45 | 647 |

## Scots language skills

As shown in Table B12, the majority of those who provided a response to the Scots language skills question selected just one skill. It is important to note that this includes selecting only 'No ability' or 'None of the above'.

Of those who selected two Scots language skills (102 cases), 29 reported being able to understand and speak Scots language, whilst 64 reported being able to understand and read Scots language. A further nine respondents said they could speak and read scots language.
Of those who selected three Scots language skills (64 cases), the majority (45 cases) reported that they could understand, read and speak Scots language. Thirteen respondents selected that they could 'speak', 'write', and 'read' Scots language. Four respondents reported they could 'understand', 'read' and 'write' Scots language and a further two respondents had selected invalid combinations that is, they had selected a valid Scots language skill in combination with 'no ability'.
Those who reported that they had all four Scots language skills (278 cases) accounted for around one in five (19\%) of the total sample (unweighted).

[^10]Respondents who selected five responses selected all four Scots language skills in combination with 'no ability' and were therefore treated as invalid due to providing an invalid combination of responses.

Table B12: Scots language skills by Scots language skills (unweighted counts)

|  |  | Number of responses |
| :---: | :---: | :---: |
|  | Ticked 1 response option | 811 |
|  | Ticked 2 response option | 102 |
|  | Ticked 3 response option | 64 |
|  | Ticked 4 response option | 278 |
|  | Ticked 5 response option (invalid combination) | 39 |

## Scots language skills by English language skills

Of those who provided a valid response to the Scots language skills question, the majority also provided a valid response to the English language skills questions (around 97\%).
The majority of respondents who did not provide a valid response to the Scots language question did provide a valid response to the English language question (around 70\%).
For respondents who reported being able to understand Scots language, almost all also reported having ability in English language ('understand', 'speak', 'read' or 'write' either 'well' or 'very well'). The same was true for those who reported being able to speak, read or write Scots language.

Of those who reported no ability in Scots language, 99\% reported having ability in English language.

Table B13: Scots language skills by English language skills (weighted responses)

|  |  | English language skills |  |  |  |  |  |
| :---: | :---: | ---: | ---: | ---: | ---: | :--- | :---: |
|  |  |  |  |  |  | $\begin{array}{l}\text { Total valid } \\ \text { responses to } \\ \text { all four English } \\ \text { language }\end{array}$ |  |
| questions |  |  |  |  |  |  |  |$]$

### 3.3. Invalid responses to Scots language

## All types of invalid response

Responses were considered to be 'partial completions' if no questions later than the marital status question were answered by the respondent. For all questions after the marital status question, partial completions have been treated as questionnaire drop out and are commented on separately from item non-response by full completions.
Overall, $2 \%$ of total responses were considered to be partial completions.
Of full completions, $88 \%$ provided a valid response to the Scots language question, and $12 \%$ of respondents provided an invalid response. This was the same proportion seen in responses to the Scottish Gaelic language question.

The majority of invalid responses from fully completed questionnaires were item nonresponse ( 126 cases) and 41 cases were due to invalid response combinations being provided (where a respondent has reported 'no ability' in Scots language but has also reported ability in understanding, speaking, reading, or writing the language).

Of the 41 people that gave an invalid combination of responses, 39 ticked the four skills responses in combination with 'no ability' response boxes for the Scots language question. Two respondents selected 'understand' and 'speak' in combination with 'no ability'.

## All types of invalid response by mode

The majority of the invalid responses to this question were generated on the paper questionnaire ( 157 of the invalid responses in fully completed questionnaires were on paper and just 10 cases online).
Of item non-responses, 116 cases were recorded on the paper questionnaire whilst 10 were recorded on the online questionnaire. All invalid response combinations came from the paper questionnaire, as this type of invalid response was not possible on the online mode.

Of all fully completed online responses, 2\% did not respond to the Scots language skills question. Of all paper responses, $14 \%$ did not respond to this question, indicating the online format was more easily understood by respondents.

Table B14: Scots language skills by mode (unweighted invalid responses) ${ }^{17}$

|  | Mode |  |  |
| :--- | ---: | ---: | ---: |
|  | Number of <br> responses <br> - Online | Number of <br> responses - <br> Paper | Total |
| Item non response - full completions | 10 | 116 | 126 |
| Item non-response - partial completions | 34 | 0 | 34 |
| Invalid multi-tick - paper only, single tick questions | 0 | 0 | 0 |
| Invalid combination | 0 | 41 | 41 |
| Routing error |  |  |  |
| Total invalid responses | 44 | 157 | 201 |
| Not applicable |  |  |  |
| Total valid responses | 601 | 652 | 1,253 |
| Total responses | 645 | 809 | 1,454 |

## Item non-response only

Item non-response accounted for 9\% of total responses to the Scots language skills question. On paper, $14 \%$ of fully completed questionnaire were non-response for Scots. The equivalent figure for online was $1.6 \%$.

### 3.4. Feedback

The questionnaire was split into four sections online. At the end of each of the four sections respondents were asked to state if they found any questions within the section difficult to answer, and to provide feedback on why this was the case in an open text box. For the paper questionnaire, feedback questions were all included at the end of the full questionnaire.
When asked "Did you find any of the following questions difficult to answer: Q19b. Scots language skills", $5 \%$ of respondents ticked that they did find this question difficult to answer. This figure was higher than the figure for Scottish Gaelic language skills (1\%).
Of the 71 respondents who said that they found this question difficult to answer, 54 gave a valid answer to the question.

[^11]
## 4. British Sign Language (BSL)

### 4.1. Question tested and aims of testing

## Quantitative Test - Paper Version

Can you use British Sign Language?

- Tick all that applyNo ability
Understand
Sign


## Quantitative Test - Online Version

```
Q20. Can you use British Sign Language?
```

- Select all that apply

Understand Bribsh Sign Language
$\square$ Sign Brtish Sign Language
$\square$ None of the above

4 Previous Stop : Next quastion -

In Scotland's Census 2011, information on British Sign Language (BSL) use was only collected through the question which asked "Do you use a language other than English at home?"

The new question tested for potential inclusion in Scotland's Census 2021 was a stand-alone question on respondents' BSL skills. This question asked "Can you use British Sign Language?", with response options to indicate whether respondents could understand and/or sign BSL, or whether they had no ability. This was tested alongside a question on 'Main language' which is in testing as a replacement for the question which asked about language other than English used at home in 2011.

The aims of testing this question were:

- To look at the distribution of responses, including similarities and differences in distribution by English language skills and health conditions (deafness or partial hearing loss).
- To analyse item non-response and other invalid response rates by mode as a measure of data quality.


### 3.1. British Sign Language distribution ${ }^{18}$

Overall, $98 \%$ of respondents who completed the full questionnaire provided valid responses to the BSL question.

An invalid response was given by approximately $2 \%$ of respondents, the majority of which was non-response. Only one respondent gave an invalid combination.
In total, $2 \%$ of respondents said they could understand and sign BSL. A further 2\% said they could understand BSL but not sign and $1 \%$ said they could sign BSL but not understand it. The remaining $96 \%$ said they had no ability in BSL.
While the question that gathered BSL use in Scotland's Census 2011 was not directly comparable to the one asked in the testing, it can be noted that in 2011 less than $1 \%{ }^{19}$ of people reported BSL as their language other than English used at home in Scotland's Census 2021.

Table B15: Distribution of respondents who British Sign Language skills responses from 2017 testing, weighted (\% of valid responses to each skill)

|  |  | $\%$ | Weighted base |
| :--- | :--- | ---: | ---: |
| British Sign <br> Language | Understand and Sign | 2 | 22 |
|  | Understand only | 2 | 32 |
|  | Sign only | 1 | 7 |
|  | No ability | 96 | 1332 |

There were only 11 instances (unweighted) of respondents ticking both 'understands' and 'signs' British Sign Language in combination. The majority of respondents reporting any BSL skill(s) ticked only one of the two skills.

This may indicate that respondents missed the guidance to 'select/tick all that apply'.

## British Sign Language by mode

When examining response to the BSL question by mode, the data show that the proportion of those with no ability in BSL did not differ significantly between the two modes on offer (approximately $50 \%$ for both online and paper).
Of those who selected that they could understand and sign BSL, $88 \%$ were online.
However, for those who reported having only one skill in BSL (either understanding or signing) a higher proportion completed the questionnaire on paper.
While it looks like there may be an association between BSL skills and mode this difference is not statistically significant, due to the small sample size of this group.
However, this may indicate that the 'select all that apply' guidance was clearer and better understood online than on paper.

[^12]Table B16: British Sign Language skills by mode (as a percentage, based on weighted estimates of total valid responses)

|  |  | Mode |  |  |
| :---: | :--- | :--- | ---: | :---: |
|  |  | Number of <br> responses - Online <br> $(\%)$ | Number of <br> responses - Paper <br> $(\%)$ |  | Total (\%)

## British Sign Language by English language skills

Of the respondents who reported being able to 'understand' and 'sign' BSL, 100\% reported ability to understand, speak, read, and write English ${ }^{20}$.
All respondents who reported being able to 'sign' only also reported that they had all found English language skills. The majority (96\%) of those who reported being able to 'understand' but not 'sign' also reported having all four skills in English.
Those reporting no ability in BSL, the ability to speak, understand, and read English was almost universal (98-99\%). This is not surprising given that the majority of respondents reported ability in English language skills (around 100\% of total responses from fully completed questions).

Table B17: British Sign Language skills by English language skills (as a percentage, based on weighted estimates of total valid responses)

|  |  | English language skills |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Understands (\%) | Speaks <br> (\%) | Reads (\%) | Writes <br> (\%) | No ability (\%) | Total valid responses (\%) |
|  | Understand and sign | 100 | 100 | 100 | 100 | 100 | 100 |
|  | Understands | 96 | 96 | 96 | 96 | 4 | 97 |
|  | Signs | 100 | 100 | 100 | 100 | 0 | 100 |
|  | No ability | 99 | 99 | 98 | 98 | 0 | 97 |
|  | Total valid responses | 99 | 99 | 98 | 98 | 1 | 97 |

## British Sign Language by health conditions by living arrangement

Of respondents who provided valid response to the BSL question, 9\% reported having deafness or partial hearing loss at the health conditions question.
No respondents who said that they could both understand and sign BSL reported deafness or partial hearing loss at the health conditions question.

[^13]The large majority (97\%) of respondents who reported being able to understand BSL did not report deafness or partial hearing loss at the long-term health condition question.
Similarly, for those who reported the ability to sign, with $21 \%$ of those reporting this BSL skill also reporting deafness or partial hearing loss.
It should be noted that base sizes amongst those reporting any skills in BSL are very small, and, as such, the association between deafness or partial hearing loss and BSL skills is unlikely to be significant.

Table B18: British Sign Language skills by health conditions (as a percentage, based on weighted estimates of total valid responses)

|  |  | Health conditions |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Has deafness or partial hearing loss (\%) | Does not have deafness or partial hearing loss (\%) | Total valid responses |
|  | Understand and sign | 0 | 100 | 100 |
|  | Understands only | 3 | 97 | 100 |
|  | Signs only | 21 | 79 | 100 |
|  | No ability | 9 | 91 | 100 |
|  | Total valid responses | 9 | 91 | 100 |

Of those reporting not to have deafness or partial hearing loss, but to have skills in BSL, $75 \%$ also live with other people. However, this may also be a reflection of the fact that the majority of the total sample live with others (around 74\% of total valid responses).

Table B19: British Sign Language skills by health conditions (as a percentage, based on weighted estimates of total valid responses)

|  | Health conditions by household composition |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Has deafness or partial hearing loss |  |  | Does not have deafness or partial hearing loss |  |  | All people |  |  |
|  | Lives alone (\%) | Lives with others (\%) | Total (\%) | Lives alone (\%) | Lives with others (\%) | Total (\%) | Lives alone (\%) | Lives with others (\%) | Total valid responses |
| - Any skills | 30 | 70 | 100 | 25 | 75 | 100 | 25 | 75 | 100 |
| 응 ${ }^{\text {co }}$ No ability | 40 | 60 | 100 | 24 | 76 | 100 | 26 | 74 | 100 |
|  | 40 | 60 | 100 | 25 | 75 | 100 | 26 | 74 | 100 |

### 3.2. Invalid responses to British Sign Language

## All types of invalid response

Responses were considered to be 'partial completions' if no questions later than the marital status question were answered by the respondent. For all questions after the marital status question, partial completions have been treated as questionnaire drop out and are commented on separately from item non-response by full completions. Overall, $2 \%$ of total responses were considered to be partial completions.
Around $2 \%$ of full completions were invalid for the BSL question and almost all invalid responses were due to item non-response.

There was only one instance of invalid combination (where a respondent selected 'no ability' in combination with 'understand' and/or 'sign'). This was the result of a respondent selecting all three response options.

## All types of invalid response by mode

The proportion of responses deemed invalid was relatively small, but it is worth noting that $77 \%$ of these were generated on the paper version of the questionnaire.

Table B20: Invalid British Sign Language skills by mode (unweighted counts)

|  | Mode |  |  |
| :--- | :--- | :--- | :--- |
|  | Number of <br> responses - <br> Online | Number of <br> responses - <br> Paper | Total |
| Item non response - full completions | 6 | 20 | 26 |
| Item non-response - partial completions | 34 | 0 | 34 |
| Invalid multi-tick - paper only, single tick questions | 0 | 0 | 0 |
| Invalid combination | 0 | 1 | 1 |
| Routing error |  |  |  |
| Total invalid responses | 40 | 21 | 61 |
| Not applicable |  |  |  |
| Total valid responses | 605 | 788 | 1393 |
| Total responses | 645 | 809 | 1454 |

### 3.3. Feedback

The questionnaire was split into four sections online. At the end of each of the four sections respondents were asked to state if they found any questions within the section difficult to answer, and to provide feedback on why this was the case in an open text box. For the paper questionnaire, feedback questions were all included at the end of the full questionnaire.

When asked "Did you find any of the following questions difficult to answer: Q20. British Sign Language", only $1 \%$ of respondents ticked that they found the BSL question difficult to answer.
Of the nine respondents who said that they found this question difficult to answer, eight gave a valid answer to the question.

## 5. Main Language

### 5.1. Questions tested and aims of testing

## 2017 Quantitative Test - Paper Version

(21)

What is your main language?
$\square$ EnglishOther, please write in (for British Sign Language write "BSL")

Quantitative Test - Online Version


One question on respondents' main language was included in the individual section of the questionnaire for testing. Respondents were asked "What is your main language?" with two options to choose from: 'English' or 'Other, please write in (for British Sign Language write "BSL"):'21

The aims of testing this question were to:

- Look at the distribution of responses, including similarities and difference in distribution by English language skills; and
- Analyse item non-response and other invalid response rates by mode as a measure of data quality.

[^14]
### 5.2. Main language distribution ${ }^{22}$

Overall, $98 \%$ of respondents who fully completed the questionnaire provided a valid response to the main language question.
Around $92 \%$ of those who gave a valid response reported English to be their main language, while $8 \%$ reported their main language to be another language.
While the questions are not directly comparable, these findings are in line with responses to the question on language other than English used at home, asked in Scotland's Census 2011.
In 2011, $93 \%$ of respondents reported their main language used at home to be English, whilst 7\% reported another language.
These figures suggest that the amended wording has had a limited impact on respondents' ability to identify the appropriate language.

Table B21: Distribution of responses to main language question in 2017 test, and distribution of responses to language other than English used at home in Scotland's Census 2011

| 2017 test (weighted responses ${ }^{\mathbf{1}}$ ) |  |  |
| :--- | ---: | ---: |
|  | Total | $\%$ |
| English | 1290 | 92 |
| Other (including BSL) | 107 | 8 |
| Total valid responses | 1398 | 100 |


| 2011 Census (all people aged 3 and over |  |  |
| :--- | ---: | ---: |
|  | Total | $\%$ |
| No, English only | $4,740,547$ | 93 |
| Yes, other (including BSL) | 377,676 | 7 |
| Total valid responses | $5,118,223$ | 100 |

## Main language by English language skills

Looking at the English language skills of those who reported their main language to be a language other than English, the majority of responses to each English language skill for this group were 'Very well'. However, it can be seen below that there is a greater range of proficiency for this group, than for those who reported English to be their main language.

[^15]Table B22: English language skills by main language (as a percentage, based on weighted estimates of responses from full completions)

|  |  |  | Main language |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | English | Other | Total valid responses |
|  |  | Very well (\%) | 97 | 53 | 94 |
|  |  | Well (\%) | 2 | 42 | 5 |
|  |  | Not well (\%) | 0 | 4 | 1 |
|  |  | Not at all (\%) | 0 | 2 | 0 |
|  |  | Very well (\%) | 98 | 51 | 94 |
|  |  | Well (\%) | 2 | 37 | 5 |
|  |  | Not well (\%) | 0 | 10 | 1 |
|  |  | Not at all (\%) | 0 | 2 | 0 |
|  | $\begin{aligned} & \underset{\widetilde{Z}}{0} \\ & \underset{\sim}{0} \end{aligned}$ | Very well (\%) | 96 | 63 | 94 |
|  |  | Well (\%) | 3 | 28 | 5 |
|  |  | Not well (\%) | 1 | 8 | 2 |
|  |  | Not at all (\%) | 0 | 1 | 0 |
|  | $\stackrel{\text { U15 }}{3}$ | Very well (\%) | 95 | 50 | 92 |
|  |  | Well (\%) | 3 | 40 | 6 |
|  |  | Not well (\%) | 1 | 9 | 2 |
|  |  | Not at all (\%) | 0 | 1 | 0 |
|  |  | Total valid responses to all four English language questions/columns | 100 | 100 | 100 |

Proficiency in English language skills by main language


### 5.3. Invalid responses to main language

## All types of invalid response

Responses were considered to be 'partial completions' if no questions later than the marital status question were answered by the respondent. For all questions after the marital status question, partial completions have been treated as questionnaire drop out and are commented on separately from item non-response by full completions. Overall, $2 \%$ of total responses were considered to be partial completions.

Approximately $2 \%$ of full completions were deemed invalid for the main language question. Almost all of these invalid responses were due to item non-response (19 cases); with less than $1 \%$ ( 4 cases) due to multi-tick responses (where respondents have selected both 'English' and 'another language' as their main language).
Item non-response was the most common type of invalid response across both modes for fully completed questionnaires. However, the number of invalid responses was too small to make associations by mode.
Table B23: Invalid main language by mode (unweighted counts)

|  | Mode |  |  |
| :---: | :---: | :---: | :---: |
|  | Number of responses - Online | Number of responses Paper | Total |
| Item non response - full completions | 6 | 13 | 19 |
| Item non-response - partial completions | 34 | 0 | 34 |
| Invalid multi-tick - paper only, single tick questions | 0 | 4 | 4 |
| Invalid combination |  |  |  |
| Routing error |  |  |  |
| Total invalid responses | 40 | 17 | 57 |
| Not applicable |  |  |  |
| Total valid responses | 605 | 792 | 1,397 |
| Total responses | 645 | 809 | 1,454 |

## Non-response only

As most invalid responses were item non-response the findings discussed above in relation to mode and age difference apply when examining item non-response.
While the 2017 testing question and the 2011 Census question are not directly comparable, it is nonetheless encouraging that item non-response sat at $4 \%$ in both years. This would indicate that the revision to ask about main language appears not to have had a detrimental impact on data quality.

### 5.4. Feedback

The questionnaire was split into four sections online. At the end of each of the four sections respondents were asked to state if they found any questions within the section difficult to answer, and to provide feedback on why this was the case in an open text box. For the paper questionnaire, feedback questions were all included at the end of the full questionnaire.

When asked "Did you find any of the following questions difficult to answer: Q21. Main language", only $1 \%$ of respondents ticked that they found this question difficult to answer. Three respondents who replied yes to the feedback question on main language also gave an invalid response.

## Annex C: BSL Cognitive Testing Background and Methodology

## 1. Rationale

General population cognitive testing was conducted with the general population in 2017. This testing included two different versions of questions on BSL use. However, the sample did not include any BSL users.
As it is particularly important to get feedback on this question from people who use BSL, cognitive testing of this question was conducted with BSL users.

## 2. Recruitment of respondents

Cognitive interviews are qualitative in nature and as such test samples are purposive and designed to reflect the range and diversity of the population of interest, rather than to be statistically representative.

In total nine interviews were conducted in Edinburgh and Glasgow. Due to the content of the questions respondents were recruited to ensure diversity in terms of their: sex, age, and which of the following best described them (as self-identified by the respondents): Deaf, Deafblind, Deafened, Hard of Hearing or Hearing.

To recruit respondents a survey was conducted through Survey Monkey. A link to this survey (along with some information about the project) was circulated to organisations with connections with BSL users, including DeafScotland (previously Scottish Council on Deafness (SCoD)), British Deaf Association (BDA) and Deafblind Scotland.

Topic Consultation respondents who indicated that they were happy to be contacted about the language topic were also contacted and the testing was also widely promoted through the Scotland's Census newsletter which has a distribution list of around 2,000 contacts and by the @NatRecordsScot Twitter feed.
The below table shows the composition of those interviewed.

Table C1. Sample composition achieved for testing

| Characteristics |  |
| :---: | :---: |
| Male | Number |
| Female |  |
| Age | 6 |
| $18-34$ | 3 |
| $35-64$ | 3 |
| $65+$ | 6 |
| Deaf, Deafblind, Deafened, Hard of Hearing or Hearing |  |
| Deaf | 4 |
| Deafblind | 2 |
| Hearing |  |
| Total | 3 |

## 3. What was tested

Respondents were shown questions on six areas:

- Age
- Long-term health conditions
- English language skills by proficiency
- Scottish Gaelic and Scots language skills
- British Sign Language (BSL) use
- Main language

Two versions of the BSL question were shown as this was the main question being tested. Findings on this question, and comments on the other questions shown are discussed in the following sections of this report.

## 4. How the testing was undertaken

All the cognitive interviews were conducted with semi-structured interview protocols. The interviews were conducted face-to-face. Where necessary, BSL/English interpreters were present for interviews.
Respondents were shown a page with six questions (as listed above) and were asked to answer all six questions before discussing them with the interviewer. Scripted probes were used to ensure consistency between interviewers and to ensure all areas of interest were explored. These included questions which explored:

- Easy of answering the questions;
- Acceptability and comprehension of questions and response option wording;
- Data quality issues; and
- Respondent preference between versions of the BSL question.

As cognitive interviews are qualitative in nature, interviewers also had freedom to probe on areas that they considered unique to the respondent and to explore issues that had not been foreseen. Each interview was audio recorded with the respondent's consent. Consent was also given by BSL/English interpreters where present.

## BSL Cognitive Testing Questionnaire (Page 1)

## Scotland's Census 2021 - Question Testing

Scotland's
Census
shaping our future

What is your age?
$\square 16-24$ years$25-34$ years$35-44$ years$45-54$ years$55-64$ years$65-74$ years$75+$ years
(2)

Do you have any of the following, which have lasted, or are expected to last, at least 12 months?

- Tick all that applyDeafness or partial hearing lossBlindness or partial sight lossLearning disablilty (a condition that you have had since childhood that affects the way you learn, understand information and communicate)Leaming difficulty (a specific leaming condition that affects the way you leam and process information)Developmental disorder (a condition that you have had since childhood which affects motor, cognitive, social and emotional skills and speech and language)Physical disabillity (a condition that substantially limits one or more basic physical activities such as walking, climbing stairs, lifting or carrying)Mental health condilition (a condition that affects your emotional, physical and mental wellbeing)Long-term illness, disease or condilion (a condition that you will have for life which may be managed with treatment or medication)Other condiltion, please write in
No condiltion

3
How well can you understand, speak, read and write English?

- Tick one box in each column

|  | Understand | Speak | Read | Write |
| :--- | :---: | :---: | :---: | :---: |
| Very well | $\square$ | $\square$ | $\square$ | $\square$ |
| Well | $\square$ | $\square$ | $\square$ | $\square$ |
| Not well | $\square$ | $\square$ | $\square$ | $\square$ |
| Not at all | $\square$ | $\square$ | $\square$ | $\square$ |

4 Can you understand, speak, read and write Scottish Gaelic or Scots language?

- Tick all that apply

Scottish Gaelic


Scots language
Can you use British Sign Language?

- Tick all that applyNo abilityUnderstandSign

What is your main language?EnglishOther, please write in (for British Sign Language write "BSL")


Thank you for your participation.

BSL Cognitive Testing Questionnaire (Page 2)

## Scotland's Census 2021 - Question Testing

Scotland's Census Shaping our future

4A Can you understand, speak, read and write Scottish Gaelic or Scots language?

- Tick all that apply

```
Scottish Gaelic
```

 ㅁ


Scots language $\qquad$

Can you use British Sign Language?Yes No

Thank you for your participation.

## Glossary

Terms used in this report are described and defined below.

| Skills: | Understanding, Speaking, Reading, Writing, Signing. <br> In this report ‘skills' refer to the different aspects of each language: <br> Understanding, Speaking, Reading, Writing, Signing (for BSL). |
| :--- | :--- |
| Proficiency: | Very well, Well, Not well, Not at all. <br> Proficiency refers to 'degree of skill' or 'expertise'. <br> In this report 'proficiency' in a language skill refers to how well a <br> respondent can do a skill: Very well, Well, Not well, or Not at all. |
| Ability: | In this report, respondents were described as having ability in a <br> skill if they selected 'Very well' or 'Well' to the question on that skill. <br> e.g. A respondent was described as being able to speak English if <br> they selected 'Very well' or 'Well' when asked 'How well can you <br> speak English?'. |


[^0]:    ${ }^{1}$ Gaelic Language Scotland Act 2005

[^1]:    22011 Census Question Testing - The Language Question (2009)
    http://www.scotlandscensus.gov.uk/documents/research/2011-census-language-question.pdf

[^2]:    ${ }^{4}$ Gaelic Language Scotland Act 2005, British Sign Language (Scotland) Act 2015

[^3]:    ${ }^{5}$ The question guidance differed between the online and paper versions as on paper there were not enough text boxes to write 'British Sign Language' in full. Online the guidance was '(including British Sign Language)'

[^4]:    ${ }^{6}$ Note that this was as compared to the two separate questions being shown online on two different screens. Having the questions on the same screen would address this concern.

[^5]:    ${ }^{7}$ Figures in this report have been rounded to zero decimal places.
    ${ }^{8}$ A questionnaire was considered a full completion if the respondent had answered any questions, including or beyond, Q12. Marital status

[^6]:    ${ }^{9}$ All invalid figures are based on unweighted counts.

[^7]:    ${ }^{10}$ Figures in this report have been rounded to one decimal place.
    ${ }^{11}$ A full completion of the questionnaire refers to respondents who answered some or all questions after Q12. Marital status. Questionnaires where respondents had not answered some or all questions after Q12 are referred to as partial completions.

[^8]:    12 Please note that figures are rounded and may not add up exactly to totals or figures quoted elsewhere in the text.

[^9]:    ${ }^{13}$ Figures are weighted percentages of whole sample.
    ${ }^{14}$ Unweighted count
    15 Unweighted counts

[^10]:    ${ }^{16}$ All figures in this report have been rounded to zero decimal places.

[^11]:    ${ }^{17}$ Please note that partial completions are excluded from item non response for this question and treated as questionnaire non response.

[^12]:    ${ }^{18}$ Figures in this report have been rounded to zero decimal places.
    ${ }^{19} 0.2 \%$ (Standard Outputs Table KS206SC: Language - All people aged 3 and over)

[^13]:    ${ }^{20}$ Having each English language skill refers to respondents who responded 'very well' or 'well' to the question on ability to understand, speak, read or write English.

[^14]:    ${ }^{21}$ The in question guidance differed between the online and paper versions as on paper there were not enough text boxes to write 'British Sign Language' in full. Online the guidance was '(including British Sign Language)'

[^15]:    ${ }^{22}$ All figures in this report have been rounded to zero decimal places.

