

Developing a user-centred, web-first approach to collecting socio-demographic and household data

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UK Data Service Webinar

Overview

1. **Why:** Context, explore why is it important to consider and research.
2. **How:** Approaches, principles and tools that underpin the development of the questions
3. **What:** Examples of our qualitative and quantitative work and products
4. Recap
5. Questions

1. Why?

...

Setting the scene

'Digital by
default 2020'

Government
Digital Service
(GDS)

Public
expectations

ONS
transformation
programme

New
opportunities
admin/big data

Evolving user
requirements

Declining
response rates

Better
Statistics,
better decisions

Where we are...



Where we need to be...



“Users don’t care about your process. They just want to do what they need to do, get stuff done, and get on with their lives. Users have needs.”

GDS, 2019

2. How?

Approach, research methods and design process

Desk review

- Understand the business needs/requirements
- Establish who the data users are
- Examination of the current survey:
 - Question length and complexity
 - Response options
 - Use of definitions
 - Routing and relevance
 - Practicalities – e.g. use of showcards

Engage with field staff

- Run focus group and workshops with interviewers
- Explore current challenges and barriers
- Understand successful techniques and messages
- Mental models

Re-design starts

User Centred Design



1 **START WITH NEEDS**
USER NEEDS, NOT GOVERNMENT NEEDS

2 **DO LESS**

3 **DESIGN WITH DATA**

4 **DO THE HARD WORK TO MAKE IT SIMPLE**

5 **ITERATE. THEN ITERATE AGAIN**

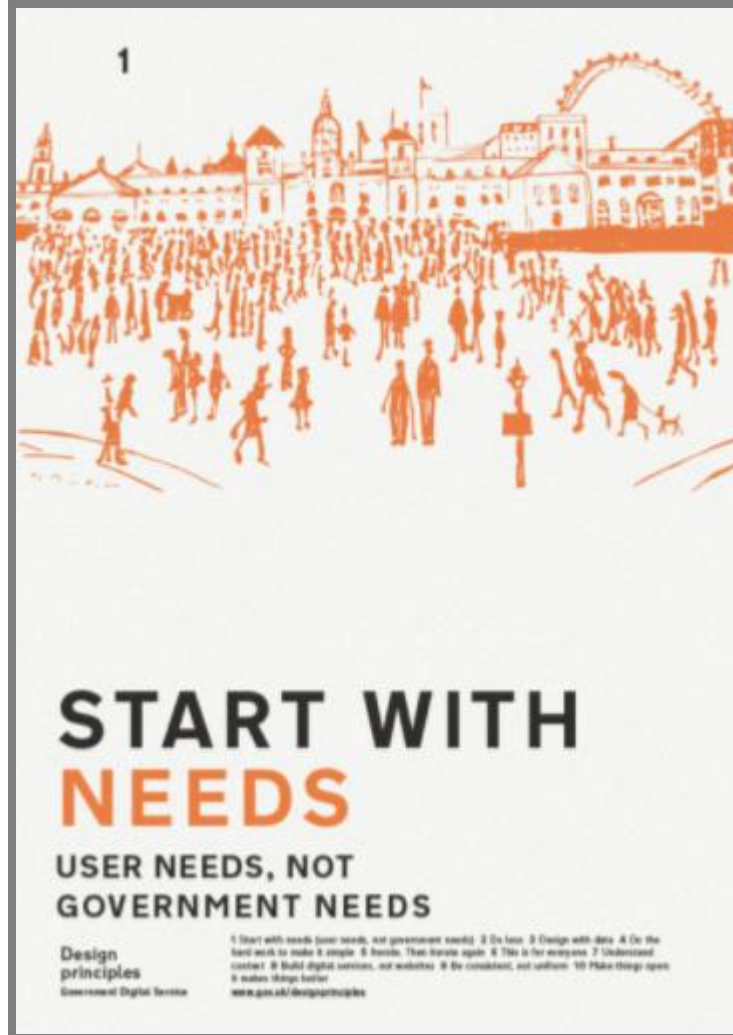
6 **THIS IS FOR EVERYONE**

7 **UNDERSTAND CONTEXT**

8 **BUILD DIGITAL SERVICES NOT WEBSITES**

9 **BE CONSISTENT NOT UNIFORM**

10 **MAKE THINGS OPEN**
IT MAKES THINGS BETTER



Respondent centric design

Mental Models

- How does the respondent understand a concept?
- How do they expect to answer?
- What do they need to provide an answer?

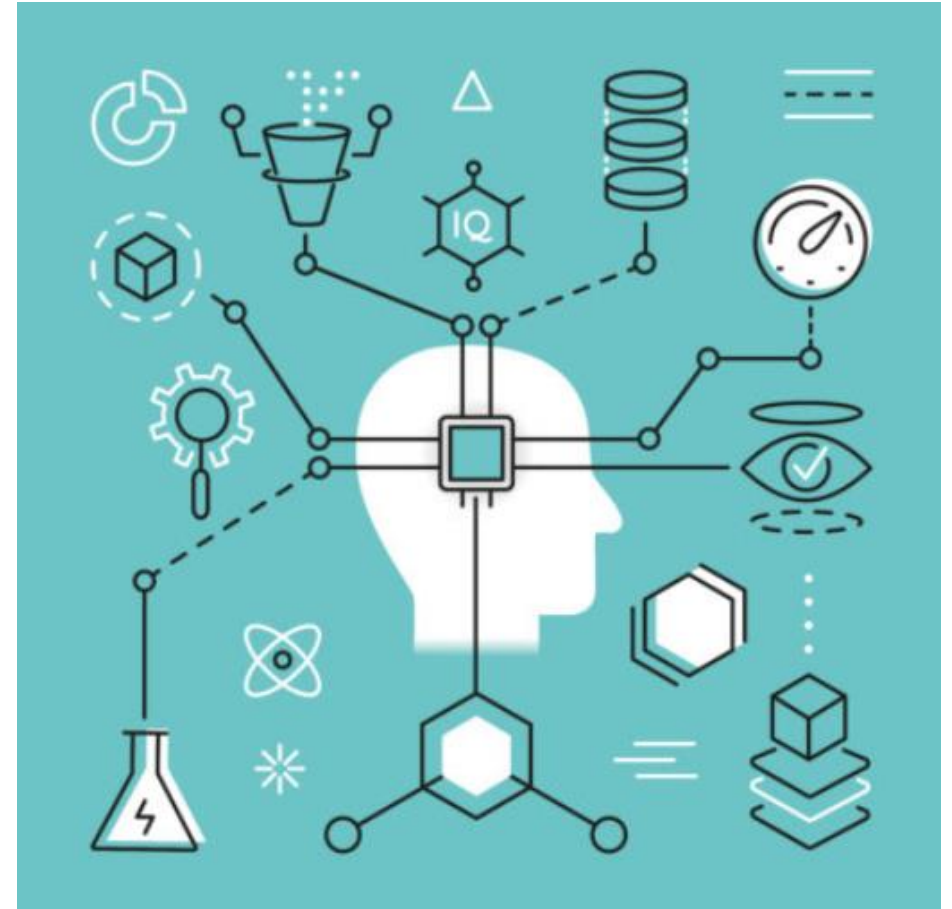


Image credit: Litmos

Focus groups

- Explore understanding, clarity, perceptions and feelings toward a topic
- Facilitates discussion - people bounce ideas around and challenge each other
- Less time-intensive than conducting individual interviews



Question design

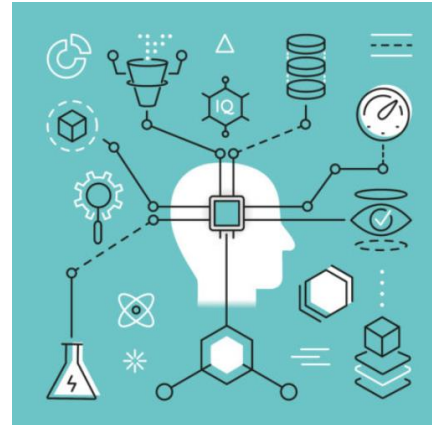
- Research from NSIs and other survey organisations
- Usability guidelines
- Accessibility guidelines



Known best practice



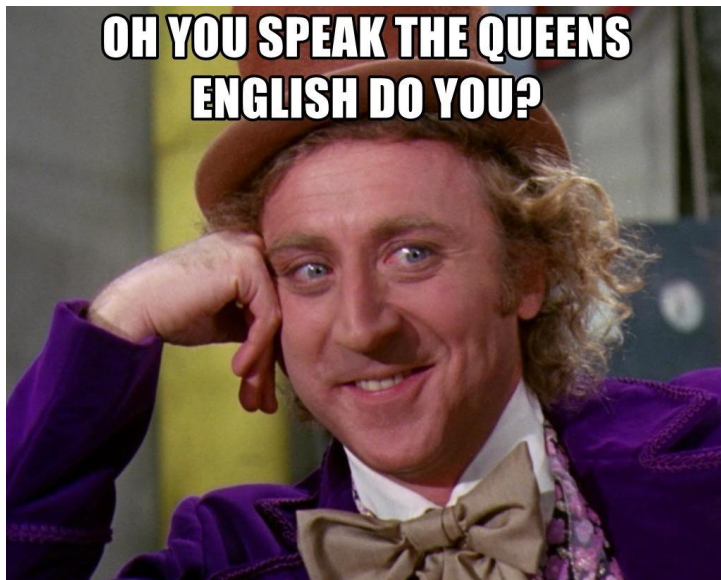
Progressive enhancement



Mental models



Design without guidance



Use their language



Design with data

Hemingwayapp.com

The screenshot shows the Hemingway Editor interface. At the top, there is a toolbar with options: Bold, Italic, H1, H2, H3, Quote, Bullets, Numbers, and Link. Below the toolbar, the text editor contains the following text:

Hemingway App makes your writing bold and clear.

The app highlights lengthy, complex sentences and common errors; if you see a yellow sentence, shorten or split it. If you see a red highlight, your sentence is so dense and complicated that your readers will get lost trying to follow its meandering, splitting logic — try editing this sentence to remove the red.

You can utilize a shorter word in place of a purple one. Mouse over them for hints.

Adverbs and weakening phrases are helpfully shown in blue. Get rid of them and pick words with force, perhaps.

Phrases in green have been marked to show passive voice.

You can format your text with the toolbar.

Paste in something you're working on and edit away. Or, click the Write button and compose something new.

On the right side, there is a sidebar with the following information:

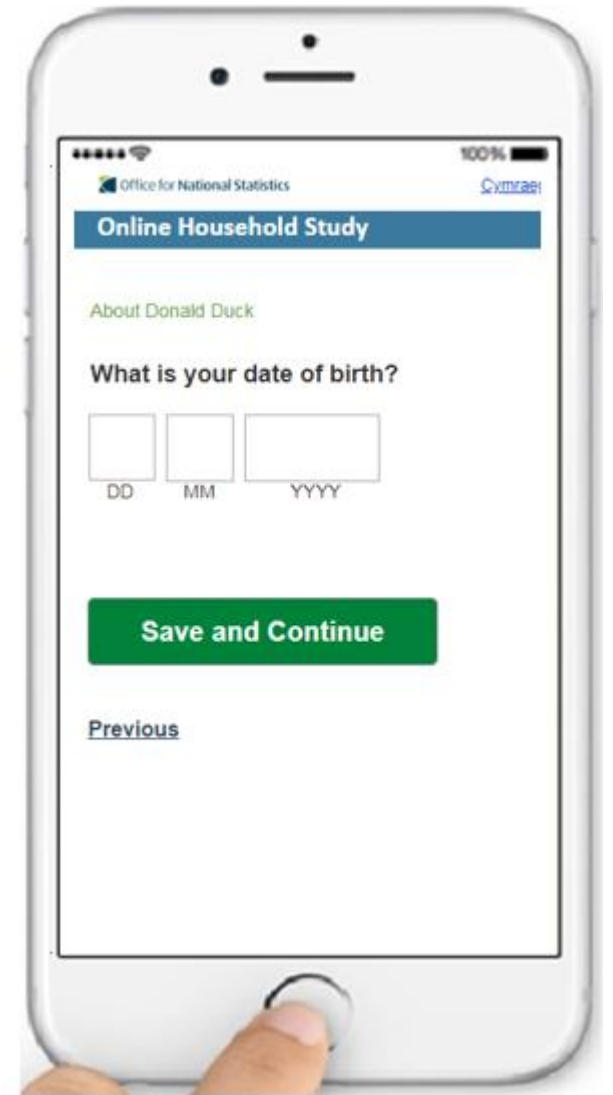
- Write Edit
- Hemingway** Editor
- Readability
- Grade 6
- Good
- Words: 133
- Show More ▾
- 2 adverbs, meeting the goal of 2 or fewer.
- 1 use of passive voice, meeting the goal of 2 or fewer.
- 1 phrase has a simpler alternative.
- 1 of 11 sentences is hard to read.
- 1 of 11 sentences is very hard to read.

[GOV.UK - understanding how people read](https://www.gov.uk/guidance/understanding-how-people-read)

Qualitative question testing starts

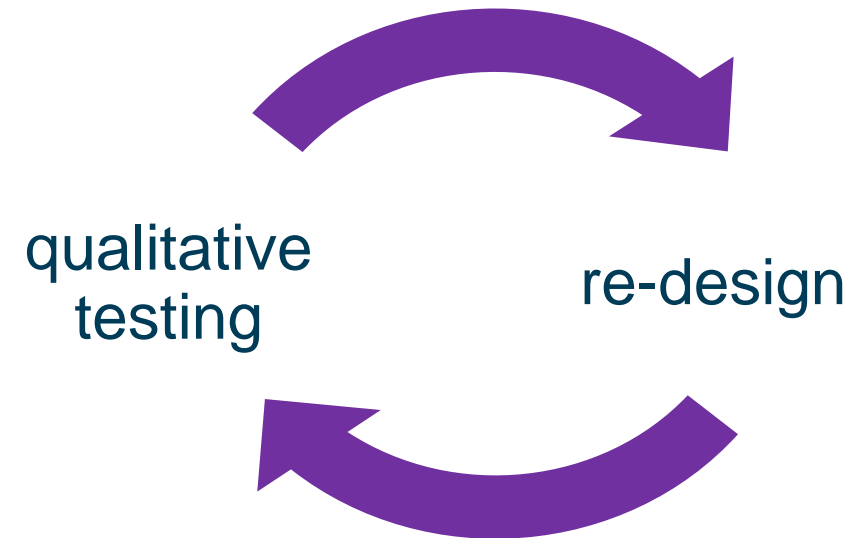
1:1 testing

- Cognitive interviewing
 - Usability testing
 - Use a prototype
 - End to end journey provides full context
 - Participants home
 - Participants device
- } Used concurrently



Iterate, iterate and iterate again

- Transcription + analysis
- Group themes
- Iterate designs
- Re-test



What

Learnings and examples from our findings

Household Composition

Mobile first design

Blaise 4.8 Data Entry - C:\CASEBOOK\DATA\LFS0313

Forms Answer Navigate Options Extras Help

LFS0313 Information_Sheet Household_Information Household_Reference_Person Benefit_unit Information_about_next_interview Timing_administration_and_household_outcome

Help<F12>

Enter the number of people living in this household

Household Composition

Stage 1: Establish Residency

'Is this the only/main residence?'

'Check for adult children'

Stage 2: Establish number of households

'One person living alone OR'

'a group of people (not necessarily related) living at the same address who share cooking facilities AND share a living room or sitting room or dining area'

Enter a numeric value between 1 and 16

RespHH Yes

HHComp

HHNew

Wv1Num

ChkSt

Blaise 4.8 Data Entry - C:\CASEBOOK\DATA\FS0313

Forms Answer Navigate Options Extras Help

LF50313 Information_Sheet Household_Information Person[1] Person[2] Person[3] Household_Reference_Person Benefit_unit Information_about_next_interview Timing_administration_and_household_outcome

Enter the title of the respondent.

- ⓘ If not entering title now, just press <enter> key for next questions.
- ⓘ Respondent name at last interview was

Enter a text of at most 10 characters

	PerNo	RefTxt	Title	FstNme	SurNme	LEstimte	HBNow	Sex	DteOfBth	Age	HallRes	xMarSta	MarChk	Liv12W	HRPId	Estimate
Line[1]	1	self														
Line[2]	2															
Line[3]	3															
Line[4]																
Line[5]																
Line[6]																
Line[7]																
Line[8]																

Blaise 4.8 Data Entry - C:\CASEBOOK\DATA\FS0313

Forms Answer Navigate Options Extras Help

LF50313 Information_Sheet Household_Information Person[1] Person[2] Person[3] Household_Reference_Person Benefit_unit Information_about_next_interview Timing_administration_and_household_outcome

Help <F12>

I would now like to ask how all the people in your household are related to each other.
 Code relationship of MRS JANE SMITH to MR JOHN SMITH.
 Treat relatives of Civil Partners as though the Civil Partners were married.
 Also, treat relatives of cohabiting members of the household as though the cohabiting couple were married, including same sex couples.

1. Spouse
 2. Cohabiting partner
 3. Son/daughter (incl. adopted)
 4. Step-son/daughter
 5. Foster child
 6. Son-in-law/daughter-in-law
 7. Parent / Guardian
 8. Step-parent
 10. Foster parent
 11. Parent-in-law
 12. Brother/sister (incl. adopted)
 13. Step-brother/sister
 14. Foster brother/sister
 15. Brother/sister-in-law
 16. Grand-child
 17. Grand-parent
 18. Other relative
 19. Other non-relative
 20. Civil Partner

	Name	RelTxt	R[1]	R[2]	R[3]	R[4]	R[5]	R[6]	R[7]	R[8]	R[9]	R[10]	R[11]	R[12]	R[13]	R[14]	R[15]	R[16]
QRg[1]	MR JOHN SMITH	self																
QRg[2]	MRS JANE SMITH	wife	<input checked="" type="checkbox"/>															
QRg[3]	MISS MARY SMITH	daughter	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>														
QRg[4]																		
QRg[5]																		
QRg[6]																		
QRg[7]																		
QRg[8]																		



How many people live in your household, including yourself, and any children and babies?

→ Please include all people who have this accommodation as their only residence.
For people with more than one address please click the descriptions below and follow the include/exclude guidance.

> Students away at university/college, student nurses, children at boarding school

- INCLUDE: Children under 19 at boarding school/college
- INCLUDE: Students living in a hall of residence in term time:
- EXCLUDE: Students NOT living in a hall of residence
- A hall of residence is a property connected to a particular educational establishment that provides communal accommodation for students attending there.
- EXCLUDE: Student nurses living away in NHS accommodation

> Other people living away

- For example, working away from home, in prison, in hospital, in a nursing home:
- INCLUDE: If for less than 6 months
 - EXCLUDE: If for 6 months or more, even if this address is considered to be their main residence

> People here temporarily while looking for permanent accommodation

INCLUDE

> People normally resident abroad

EXCLUDE

> Second home/holiday home

EXCLUDE: If this address is a second home/holiday home for anyone (even if this means the answer is '0')

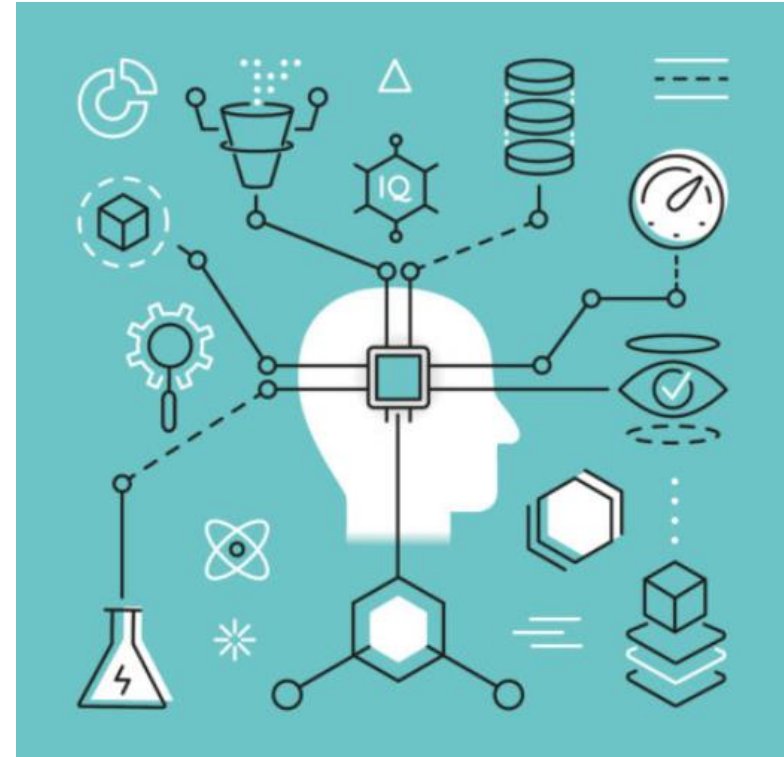
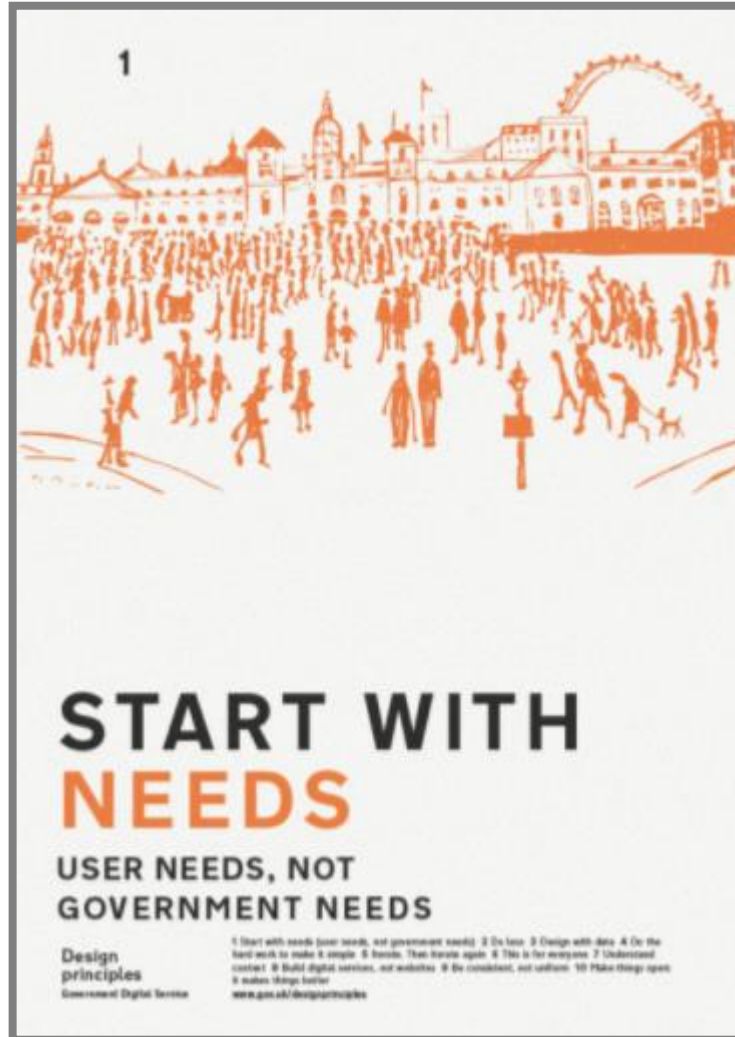
4

< Back

Next >

Save





BETA

[Previous](#)

[About your household](#)

Who lives at this address?

Include everyone who classifies this address as their main residence

My Details

My Title

Please select

My First or Given Name

My Surname or Family Name

My Sex

Please select

My Date of Birth

DD MM YYYY

Add another person

Save and Continue

[Previous](#)

BETA Labour Force Survey

[Previous](#)

[About your household](#)

- Mr Donald Duck, Male, 1960
- Mrs Daisy Doe, Female, 1955
- Mr Dewey Duck, Male, 1990
- Mr Louie Duck, Male, 1990

Are any of these people currently away from this address for a total of 6 months or more?

Yes

No

Is anyone also a student living at another address for at least part of the year?

Yes

No

Save and Continue

[Previous](#)



BETA Labour Force Survey

Previous

About your household

Who lives at this address?

Include everyone who classifies this address as their main residence, even if they are:

- currently away, for example working abroad or in prison
- at university living in a halls of residence or other accommodation for part of the year
- a member of the armed forces who is currently away on tour
- a young child or baby

Person 1

Title

Please select

First or Given Name

Surname or Family Name

Sex

Please select

Date of Birth

DD MM YYYY

Add another person

Save and Continue



BETA

About your household

Enter your details

My First or Given Name

My Surname or Family Name

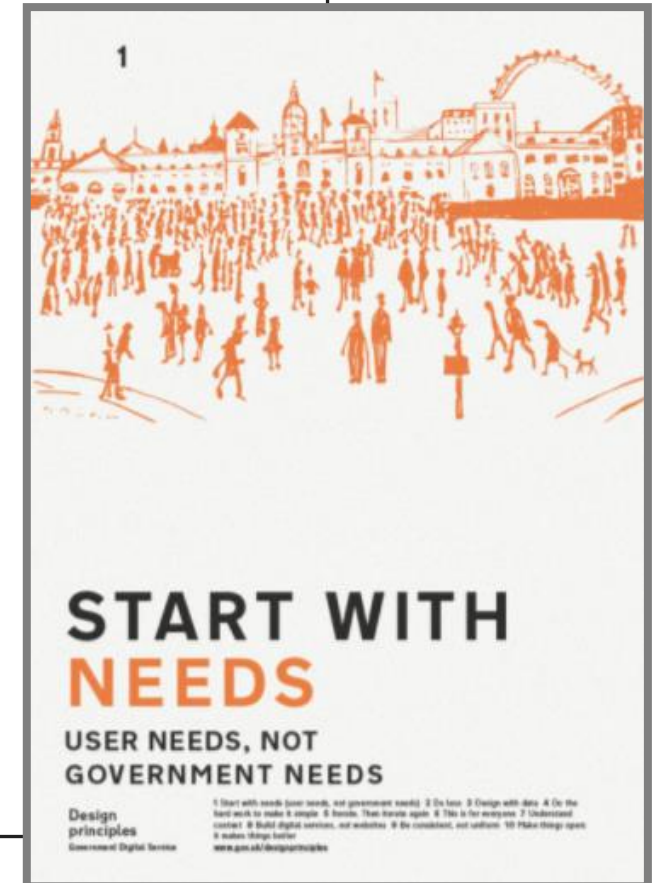
My Sex

Male

Female

Save and Continue

[Previous](#)



Online Household Study

About your household

Does anyone else live at 1 High Street?

Yes

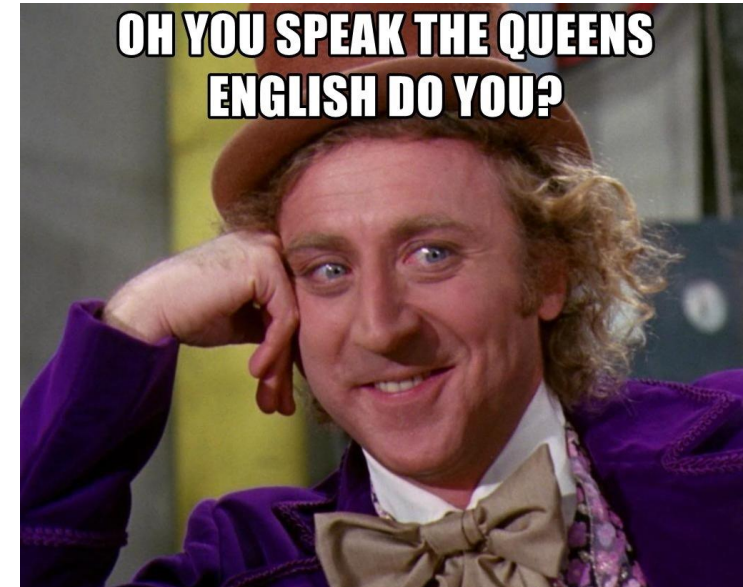
This is the main residence of other adults, children or babies, even if they are currently away for a continuous period of up to 6 months

No

This is not the main residence of any other adults, children or babies

[Save and Continue](#)

[Previous](#)



Online Household Study

About your household

Is that everyone?

You have added...

Donald Duck

Daffy Duck

Scooby Doo

Road Runner

Yes
That is everyone who classes this address as their main residence.

No
I need to add someone else

[Save and Continue](#)

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Online Household Study

About your household

Do any of these people live in a student halls of residence for part of the year?

Donald Duck

Daffy Duck

Scooby Doo

Road Runner

Someone else not listed above

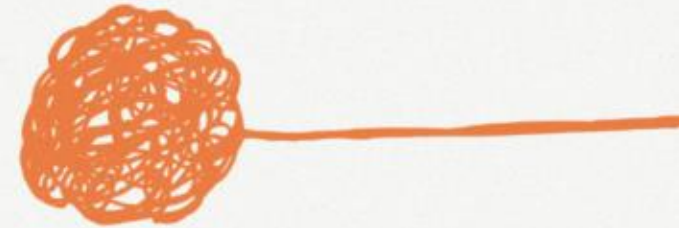
Or

None of these people live in a student halls of residence

[Save and Continue](#)

[Previous](#)

4



**DO THE
HARD WORK
TO MAKE
IT SIMPLE**

Design
principles

Government Digital Service

1 Start with needs (user needs, not government needs) 2 Do less 3 Design with data 4 Do the hard work to make it simple 5 Review, then iterate again 6 This is for everyone 7 Understand context 8 Build digital services, not websites 9 Be consistent, not uniform 10 Make things open if makes things better
www.gov.uk/designprinciples

Online Household Study

About your household

Please enter the details of the other people who live at 1 High Street.

Include all adults, children and babies who class this as their main residence, even if they are currently away for a continuous period of up to 6 months.

Person 2

First or Given Name

Daffy

Surname or Family Name

Duck

Sex

 Male Female

This person is my...

Please select

[I need to add a third person](#)[Save and Continue](#)[Previous](#)

This person is my...

Please select

Please select

Wife, husband or civil partner

Partner

Mother or father, including adoptive mother or father

Step mother or step father

Mother-in-law or father-in-law

Daughter or son, including adopted daughter or son

Step daughter or step son

Daughter-in-law or son-in-law

Sister or brother

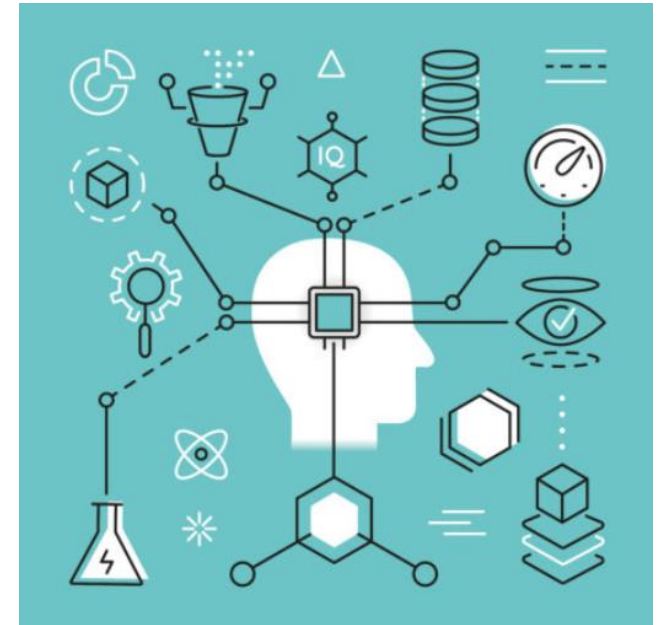
Step sister or step brother

Grand mother or grandfather

Grand daughter or grandson

Other relative

Other non relative, including foster parent or child



What about the other modes?

The telephone mode

- What aspects of the online mode works for the telephone interviewers?
- What doesn't?
- How can we optimise it for them?

Telephone mode

- Different context
- Conversational
- Fewer questions required
- BUT data quality shouldn't be lost

Online Household Study

About your household

Can I have your first name please?

And your surname?

And is your sex...

Male, or

Female?

Save and Continue

[Previous](#)

Office for National Statistics

Online Household Study

About your household

Including all adults, children and babies, how many other people classify this address as their main residence?

Where there is doubt regarding eligibility, include the household member

Save and Continue

[Previous](#)

Householders
names
collected

Office for National Statistics

Online Household Study

About your household

Ask or record

You have added...

- Donald Duck
- Daffy Duck
- Scooby Doo
- Road Runner

**Can I just check, is there anyone else you need to add?
For example anyone who classes this as their main residence but who is currently away working or abroad, or living in a halls of residence?**

Yes
I need to add someone who is currently away

No
That is everyone

Save and Continue

Telephone testing

- “Real life” situation
- Cognitive interview
- Using interviewers
- Gain interviewer and respondent perspective

9



BE CONSISTENT NOT UNIFORM

Design
principles
Government Digital Service

1 Start with users (user needs, not government needs) 2 Do less 3 Design with data 4 Do the hard work to make it simple 5 Iterate. Then iterate again 6 This is for everyone 7 Understand context 8 Build digital services, not websites 9 Be consistent, not uniform 10 Make things open & make things better
www.gds.uk/designprinciples

Face to face

- Different context and situation again
- Often sorted “on the doorstep”
- Conversational
- Visual clues
- No need for multiple questions



Image credit: 123RF

Remember to:

Include all adults and children, especially babies, including those who are living in a student halls of residence.

Exclude those who are living in the UK on a temporary basis if they remain a resident of another country. For example they may be here for recreation, holiday, business or medical treatment

The LFS household definition is one person alone OR a group of people (not necessarily related) living at the same address who share cooking facilities AND share a living room OR sitting room OR dining area.

If members of the household do not share cooking facilities AND a living room or sitting room or dining room then more than one household should be identified at this address. Contact FEL for advice on which household to interview

The address is ineligible if it is purely a holiday home, second home or business address.

What if a householder has a second address?

The other address is...	Include as part of the household?	Notes
A student halls of residence	✓	
Student accommodation rented through a private landlord	X	Do not include this person as part of the household. They should be included at their student address
NHS student accommodation	X	This person would be included at their NHS accommodation address
A boarding school. This is a child under the age of 16	✓	
Another type of address. The householder is away from this address for a continuous period of 6 months or more. This could be at a second home or holiday home for example	X	Do not include this person as part of the household. They should be included at their other address

Lodgers:

Up to 3 lodgers	✓	Include all lodgers as part of the household
4 or more lodgers	X	The lodgers would be viewed as business clients. Include the proprietor and their household. Do not include the lodgers.



Enter number of people who class this as their main residence

Refer to 'A5 definitions' card when determining eligibility of household members.

Where there is doubt regarding eligibility, include the household member

Enter up to 16 people

Save and Continue

[Previous](#)

Quant Tests

Online Labour Market Survey (LMS)

Quant test findings

- Household grid has low drop off
 - 2017: 37,800 sample: 0.8% drop off
 - 2019: 50,000 sample: 0.4% drop off
- Respondents come back!
 - 2017, wave 2, 5,226 sample
 - 0.7% drop off
 - 59.9% response

Sociodemographic questions

Online Household Study

About Donald Duck

What is your date of birth?

<input type="text"/>	<input type="text"/>	<input type="text"/>
DD	MM	YYYY

Save and Continue

[Previous](#)

Online Household Study

About Donald Duck

What is your age?

Years

Save and Continue

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Blaise 4.8 Data Entry - C:\CASEBOOK\DATA\LFS0313

Forms Answer Navigate Options Extras Help


LFS0313 Information_Sheet Household_Information Person[1] Person[2] Person[3] Household_Reference_Person Benefit_unit Information_about_next_interview Timing_administration_and_household_outcome

MR JOHN SMITH (1)
In which country were you born? [Help<F12>](#)

921. England
 924. Wales
 923. Scotland
 922. Northern Ireland
 926. UK, Britain (don't know country)
 372. Republic of Ireland
 356. India
 586. Pakistan
 616. Poland
 997. Other

NTNLTY12: 997 Other CameYr2
 NatSpec: australian CameMT
 NatO7: 36 WhyUK10
 Cry12:
 CrySpec
 CryO7
 CameYr
 ContUK

The 'Isle of Man' and the 'Channel Islands' are NOT part of the UK and should be coded 997.



14/2706 Navigate LFS0313

Online Household Study

About Donald Duck

In which country were you born?

- Wales
- England
- Scotland
- Northern Ireland
- Republic of Ireland
- Isle of Man or Channel Islands
- India

PART 1
ETH11

Applies to all

Interviewer to read:

What is your ethnic group?
I will read out the options, choose one option that best describes your ethnic group or background

In England and Wales

Interviewer to read options:

1. White, or
2. Mixed/ Multiple ethnic groups, or
3. Asian/ Asian British, or
4. Black/ African/ Caribbean/ Black British, or
5. Chinese, or
6. Arab, or
7. Other ethnic group

1. English / Welsh / Scottish / Northern Irish / British, or
2. Irish, or
3. Gypsy or Irish Traveller, or
4. Any other White background?

1. White and Black Caribbean, or
2. White and Black African, or
3. White and Asian, or

1. Indian, or
2. Pakistani, or
3. Bangladeshi, or
4. Any other Asian background?

1. African, or
2. Caribbean, or
3. Any other Black / African / Caribbean background?

Please can you describe your ethnic group or background?

Record respondent's answer



What is your ethnic group?

White

- English/Welsh/Scottish/Northern Irish/British
- Irish
- Gypsy
- Any other White ethnic background

Mixed/multiple ethnic groups

- White and Black Caribbean
- White and Black African
- White and Asian
- Any other mixed/ multiple ethnic background

Asian/ Asian British

- Indian
- Pakistani
- Bangladeshi
- Any other Asian background

Black/ African/ Caribbean/ Black British

- African
- Caribbean
- Any other Black/ African/ Caribbean background

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Save & exit

Online Household Study

About Donald Duck

What is your ethnic group?

- White
Includes any White background, for example British, Northern Irish, Irish, Gypsy, Irish Traveller or Roma
- Mixed or multiple ethnic groups
Includes White and Black Caribbean, White and Black African, White and Asian or any other Mixed ethnic group
- Asian or Asian British
Includes Indian, Pakistani, Bangladeshi, Chinese or any other Asian background
- Black, African, Caribbean or Black British
Includes African, Caribbean or any other Black background
- Other
For example Arab or any other background

[Save and Continue](#)

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Online Household Study

About Donald Duck

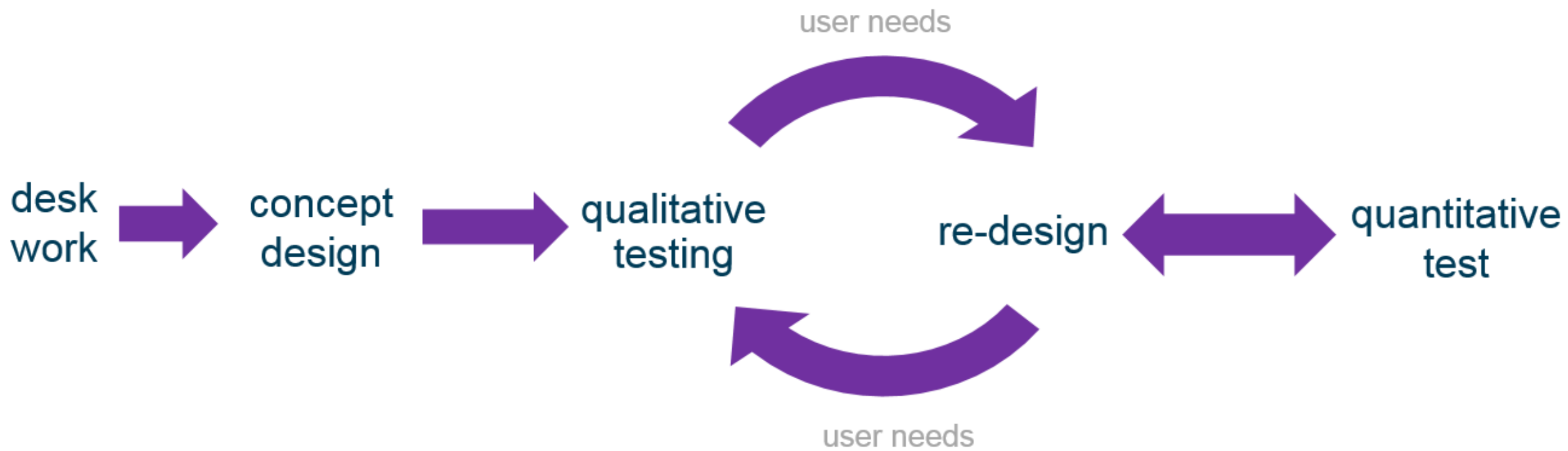
Which one best describes your Asian or Asian British ethnic group or background?

- Indian
- Pakistani
- Bangladeshi
- Chinese
- Any other Asian background

[Save and Continue](#)

[Previous](#)

What's next?



Top tips

Top tips

- Identify your users
- Establish their needs
- Use expert knowledge that's already out there
- Develop standards and principles, and stick to them
- Get out and test
- Design small, win big
- Re-iterate regularly

Useful Sources

Websites

- [Government Digital Service](#)
- [Gov.uk Service Manual](#)

ONS Blogs

- [Labour Market Survey Transformation2](#)
- [Designing the future of ONS surveys](#)

Webinars

- [The ONS Labour Force Survey Transformation Project - Designing a web-first approach to data collection](#)
- [Designing user-centred engagement strategies for online-first surveys – part of the ONS Social Survey Transformation Project](#)

Some literature

- The SAGE Qualitative Research Kit (series of books) (2018). SAGE
- Couper, M. (2008). Designing effective web surveys. Cambridge University Press
- **Krug, S.** (2000). Don't make me think!: a common sense approach to Web usability. Pearson Education India.

The background of the slide features a light blue wall with numerous hands of various skin tones reaching up to hold up colorful speech bubbles. The bubbles are in shades of red, blue, yellow, and grey, and are scattered across the frame. The text is overlaid on this background.

Thank you Any questions?

Emma.Dickinson@ONS.gov.uk