

Using Respondent Centred Design to Transform Social Surveys at the ONS

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1. Abstract

The UK government has a Digital by Default strategy which means that by 2020 digital self-service is the default option for people who can use it, not the only option. Coupled with public expectations to be able to do surveys online and increasing use of smartphones to perform online tasks means the Office for National Statistics (ONS) has invested in a transformation programme that focuses on research to deliver and integrate respondent centered online data collection. We have taken a ‘blank page’ approach to the redesign of our respondent journey which has been met with success.

This talk will share our approach to achieving this and the principles that the social survey research and design team use to develop online-first mixed-mode surveys. ONS practices respondent centricism in its approach to design; we place the respondent at the forefront of our design process by aligning the questions and flows with their mental models. We create a questionnaire that collects accurate data which meets the requirements whilst also delivering a positive respondent experience which is vital for voluntary longitudinal surveys.

This talk will provide tangible examples of changes to questions, including tips for other researchers to take away and apply. It will also discuss novel techniques such as combined cognitive and usability testing and why it is essential for successful delivery and good data quality in self-complete modes.

We optimise for the mode and design ‘smartphone first’. This talk will demonstrate through evidence how and why this approach is critical for success. By optimizing for smartphones, we create cleaner designs, ensure higher quality data and reduce the break-off rate for respondents who are unlikely to return on another device or in another mode.

We will share our practical examples and recommendations on techniques, questions and approaches.

2. Social Survey Transformation

Under the umbrella of the Census and Data Collection Transformation Programme at the Office for National Statistics, we are working to evolve our Social Surveys so that they are relevant, efficient and suitable for the digital age. This transformative programme has come about as a result of the UK government’s Digital by Default strategy. Digital by Default was introduced in 2012 and means making online services so easy to use that they become the default mode to access them in, which is reflective of an increasingly digital society (but more about that later). For us in the Research & Design team, this means putting users first – not data users, but the hundreds of thousands of members of the public who voluntarily complete our surveys every year.

3. User Centred Design

Being respondent centric involves putting respondents at the top of your list of considerations when designing – all the way from the wording you use for questions and responses, to the order that the questions are asked in. This approach to survey design and data collection is derived from the philosophy

of user centred design, in which the needs of the service user are given the utmost attention at each stage of the design process.

User-centredness in government service design is a radical approach, first adopted and promoted by the Government Digital Service (GDS), which was set up to aid the Digital by Default strategy. Alongside pioneering national digital infrastructure (GOV.UK)¹, providing government departments with technology that reduces barriers and promoting better data in government², the GDS has developed a set of design principles which inform our approach to survey redesign. They are:

- Start with user needs
- Do less
- Design with data
- Do the hard work to make it simple
- Iterate, then iterate again
- This is for everyone
- Understand context
- Build digital services, not websites
- Be consistent, not uniform
- Make things open: it makes it better

The threads of the GDS principles run through every aspect of our work. They influence our approach to survey design by demanding that we talk to and interact with our survey users before making decisions about something that will impact their experience. This is the only way to make sure the work we do is respondent centric. In the past, this approach has been met with resistance, but we persevere and promote this way of working because we know it produces better results.

4. Discovery and alpha

So what does this innovative approach look like on the ground, in practice? We adopt the agile service delivery approach set out by the GOV.UK Service Manual³ which involves designing and testing services in an iterative manner. The first two of these phases are known as discovery and alpha.

Discovery does what it says on the tin. Before we can begin to create a design solution for any of the surveys in our scope, we must first understand our survey users and their contexts. First and foremost, we GOOB (get out of the building). We use a variety of qualitative research methods to gather data on our survey users. Discovery often includes focus groups and pop-up testing, methods which we consider suitable for collecting nuanced and insightful data. Focus groups, conducted with members of the public that share a characteristic in common with a set of survey questions that we are transforming, allow us to uncover people's understandings of topics and their mental models surrounding them. For example, last year I worked on the transformation of a set of questions which gathered information from self-employed individuals, including their gross and net incomes. We held a focus group with a range of self-employed people to find out how they thought about their income outside of the traditional monthly payslip that we as employees receive. We do this to make sure we understand context. After analysis, we combine our findings with our data user requirements and mock up some high level prototypes of survey questions.

¹ <https://www.gov.uk/>

² <https://data.blog.gov.uk/2015/09/24/work-of-prog/>

³ <https://www.gov.uk/service-manual/agile-delivery>

We put these through pop-up testing, either with the public or sometimes in the coffee-shop at work, luring colleagues in with free chocolate. This is a ‘quick and dirty’ way of gathering thoughts and opinions on early stage prototypes, allowing us to find out early on if something we’ve put together is likely to fall down when released to the public. Approaching design like this in the early stages means we fail fast and fail forward.

The next stage is to take our first set of redesigned questions to test with our users. This is where we find out what’s working and what isn’t and is known as the alpha phase. We use a unique method called ‘cogability’ to determine whether or not our redesigns are useable and collecting the information that we intended them to. Cogability is a combination of cognitive testing and usability testing, and involves observing the participant going through a simulation of the survey. We then retrospectively probe the participant about their experience, to dig deeper into what they found easy, what they struggled with, what frustrated them, what made them answer in the way they did, and, most importantly, why. We analyse the data from these sessions and develop findings - what works about the suite of questions and can stay the same, and what fell down and needs to change. Then we make those changes. And then we go out and test. And then we analyse. And then we change. And then, if needs be, we do it all again – in GDS terms, we iterate. Then iterate again. We do this because we want to design with data and evidence, rather than our own presuppositions and presumptions. Ultimately, we do it to make sure the surveys that we design are for everyone. That means they need to be accessible, inclusive and usable.

5. Inclusive design, usability and accessibility

Usability, accessibility and inclusion are key elements of making sure a design or service works for everyone. They are three separate aspects but there is a great deal of crossover between them, and often one is mistaken for another. It’s important to consider them all individually, as each one will have a different impact when it comes to questionnaire design. The accessibility of your survey or service means it can be used by as many people as possible, including those with impaired vision, motor difficulties, cognitive impairments and deafness or impaired hearing. At least 1 in 5 people in the UK have a long term illness or disability, and many more a temporary impairment, so failing to ensure that our designs can be used either as they are or with adaptive software, would mean excluding a large proportion of the population from engaging with our surveys. We work closely with the Digital Accessibility Centre (DAC), a specialised team who ensure everything we output at the ONS meets Web Content Accessibility Guidelines, alongside in-house measures

‘Accessible design’ is often used interchangeably with ‘usability design’, and it’s easy to see why - there are overlaps, but also some key differences. Usability is about making products and services effective, satisfying and as the name might suggest, usable. It includes dimensions such as a familiar user interface on digital services and the extent to which a user is actually able to complete the tasks they set out to in the first place. Usability is crucial in design but does not consider aspects of the experience which disproportionately impacts people with disabilities and impairments, and this is where the difference lies.

Finally, we have inclusion. This is about design for all, and encompasses a range of different aspects such as accessibility, language, computer literacy and skills, geographic location, education and personal context. We take measures to ensure that our survey designs are inclusive by conducting readability tests, which aim to make sure the text involved in our surveys is around a reading age of 9, which is the average UK reading age. We also make sure our surveys are available in other modes for those who have limited digital abilities and on the flip side, make sure our designs work on mobile, because we know that people use their mobiles to do things like filling in surveys.

Making services accessible, usable and inclusive means designing for all. The user benefits because whoever they are, they can do what they set out to do. Service owners benefit because the users have a better experience and are more likely to come back to – or keep using- that service, whatever it may be. And the latter is definitely the case when it comes to surveys!

6. Optimode design

One of the key ways that we make sure we are being respondent centric is by taking an ‘optimode’ approach. Optimising for the mode means designing surveys which are tailor-made to the mode that they are going to be deployed on, rather than ‘lifting and shifting’ content which was previously designed for CATI to CAWI, which was the approach taken traditionally in similar projects and contexts. This generally means completely scrapping a suite of questions and starting from scratch, which may seem extreme, but actually makes a lot of sense when you look at it from a respondent-centric position. As discussed in previous sections, doing the hard work at this stage means our surveys function better in the long run. The better the surveys are designed, the less burdensome they are for the respondent, therefore the data they produce is better because respondents are less likely to drop out halfway or give us incorrect information because they haven’t understood what we’re asking them.

In the Research & Design team, we take an online – first approach. Designing for the web in the first instance forces us to think hard about our patterns and questions so that they are as efficient as possible. Doing the hard work at this stage to reduce the complexity of the questions so that they can be answered by the respondent on their mobiles, without guidance, also means that in most cases, the designs work really well in other modes, with little need for moderation. In principle, optimode means designing separate versions of our variables for CAWI, CATI and CAPI, but we find that in reality, this isn’t always necessary. It turns out that if you optimise the design for the most challenging mode (which is CAWI because there is no expert interviewer on hand to explain to the respondent what information a question is *actually* looking to collect), often the design is easily translated to other modes with little need for tweaking. Of course, this doesn’t mean that this is always the case. Whilst we are moving to an online-first, mixed mode approach, we would also always offer our surveys in various modes for people who are not able to or do not wish to complete them online. Therefore we treat our telephone and F2F mode designs the same way as we treat online designs when it comes to testing. The designs are tested scrupulously in the same manner, with the general public but also with telephone and field interviewers, and changed until they work as efficiently as possible either over the phone or out in the field with our interviewers.

7. Adaptive design and mobile first

Further to designing for online in the first instance, we also take a mobile-first design approach. This is a contentious way of working, because there are lots of people of the opinion that designing in this way is harder or simply not necessary. Let’s look at this as two separate points. First: ‘designing for mobiles is not necessary’. In 2011, according to data from Ofcom, 2% of adults in the UK only used their smartphones to go online. In 2018, this was 11%. To break this down further, of 16 – 24 year olds, 12% only used a smartphone to get online. Of 25 – 34 year olds, the figure was 22%. By ignoring mobiles as a device that people are likely to use to complete surveys, not only are we potentially excluding a staggering amount of already hard to reach respondents, we are also excluding those from certain socioeconomic groups. Of those in socioeconomic group DE (defined by NRS as semi and unskilled manual workers, state pensioners, casual and lowest grade workers and unemployed with state benefits), 17% are only going to be accessing the internet on their mobiles. We can see from these figures that designing for mobile is crucial to make sure surveys are reaching younger respondents and people from

all socioeconomic backgrounds, meaning that crucial groups of people are not underrepresented and can have their say. Actual mobile use when it comes to survey participation is reflected in our recent Labour Market Survey Statistical Test. Of those who completed online, nearly 18% did so on mobile. If that section of the sample had not been given the option to complete on mobile, due to the availability of devices or busy lifestyles, it's possible that they would not have responded at all. This demonstrates the importance of providing an optimised mobile version of our surveys.

Second: 'designing for mobiles is harder and takes longer'. Designing for mobile first doesn't need to be harder. Whilst approaching survey design in this way might force us to think about reducing the complexity of the front-end, it makes life easier in the long-run because these types of design are easier to test and crucially, are generally easier and more effective patterns to use on other devices. It's much harder to design for desktop first and then try to squeeze that design on to a tablet or mobile than it is to design using restricted space, creating a pattern which looks great on mobile but also on a tablet or a desktop. Designing mobile first makes us really think about what we're including on a page, so there is no unnecessary fluff in the question, response or guidance (if guidance is really needed, which in most cases it isn't if the question has been phrased effectively).

Finally, designing for mobile first makes the patterns we produce more effective for the adaptive design approach that our in-house survey data collection team work with. They work in this way to ensure that the respondent's experience is optimised, whichever device they choose to use to fill in our surveys. Ultimately, we are all working towards the same thing: the best experience for the survey user, which means better data for the data user.